

Pipe, Fittings, Valves,
Specialties

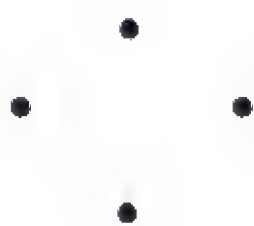
Taylor-Forbes Company
Limited

CATALOGUE No. 81R

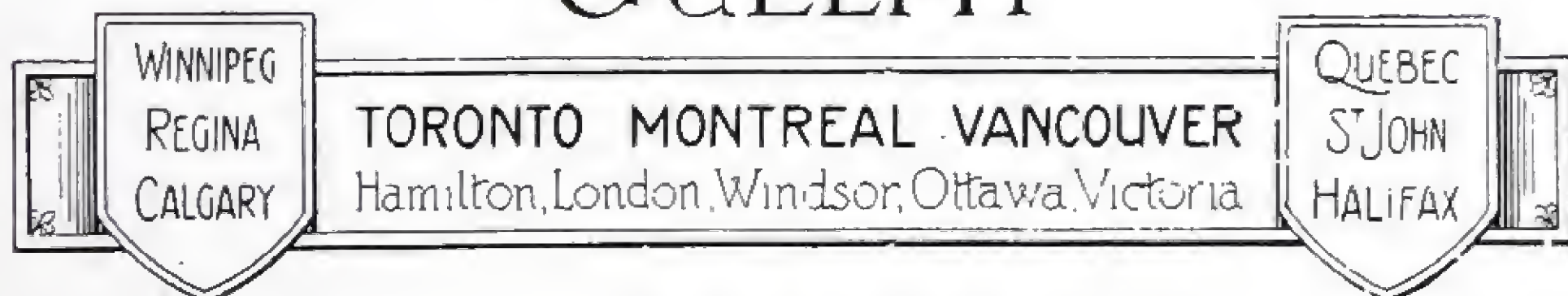


**GENERAL
SUPPLIES CATALOGUE
NO. 81R**

**PIPE, FITTINGS,
VALVES,
SPECIALTIES**



TAYLOR-FORBES COMPANY
Head Office & Works
GUELPH



Manufacturers of
BOILERS AND RADIATORS FOR STEAM AND WATER

THE
COLLEGE OF THE
SACRAMENTO

LIBRARY
- 1912 -
1112 1/2

THE
LIBRARY

OF THE
SACRAMENTO

AND
THE

STANDARD WROUGHT PIPE
Black and Galvanized

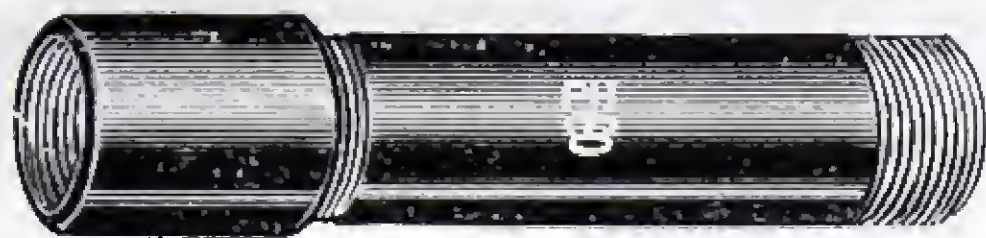


Fig. 1

Size Inches	List Price Per Foot	Weight Per Foot	Outside Diameter	Inside Diameter	No. of Threads Per Inch
$\frac{1}{8}$	.05 $\frac{1}{2}$	.241	.405	.27	27
$\frac{1}{4}$	.06	.42	.540	.364	18
$\frac{3}{8}$	.06	.56	.675	.494	18
$\frac{1}{2}$	.08 $\frac{1}{2}$	.837	.840	.623	14
$\frac{3}{4}$	.11 $\frac{1}{2}$	1.115	1.050	.824	14
1	.17	1.668	1.315	1.048	11 $\frac{1}{2}$
1 $\frac{1}{4}$	.23	2.224	1.660	1.380	11 $\frac{1}{2}$
1 $\frac{1}{2}$	.27 $\frac{1}{2}$	2.678	1.900	1.611	11 $\frac{1}{2}$
2	.37	3.609	2.375	2.067	11 $\frac{1}{2}$
2 $\frac{1}{2}$	.58 $\frac{1}{2}$	5.739	2.875	2.468	8
3	.76 $\frac{1}{2}$	7.536	3.500	3.067	8
3 $\frac{1}{2}$	.92	9.00	4.000	3.548	8
4	1.09	10.665	4.5	4.026	8
4 $\frac{1}{2}$	1.27	12.34	5.0	4.508	8
5	1.48	14.50	5.563	5.045	8
6	1.92	18.76	6.625	6.065	8
7	2.38	23.27	7.625	7.023	8
8	2.88	28.18	8.625	7.982	8
9	3.45	33.70	9.625	8.937	8
10	4.12	40.06	10.75	10.019	8
11	4.63	45.95	11.75	11.0	8
12	5.07	49.00	12.75	12.0	8

Pipe is shipped in random lengths, with threads and couplings (except Extra Heavy and Double Extra Heavy, which are always "Plain Ends"), unless otherwise specified.

An extra charge is always made for pipe cut to specified lengths. Pipe ordered cut to specified lengths, with couplings, is always measured to include couplings—i.e., over all, unless otherwise designated. Pipe cut to exact lengths is always furnished with ends threaded unless otherwise specified—this does not apply to Extra Heavy or Double Extra Heavy Pipe.

Couplings are not furnished with Pipe cut to specified lengths, unless so ordered.
Specify Genuine Wrought Iron Pipe when such quality is required, otherwise Steel Pipe will be supplied.

CUTTING AND THREADING PIPE

Size, Inches	Per Cut	Per Thread	Size, Inches	Per Cut	Per Thread
$\frac{1}{8}$	.06	.06	3	.30	.30
$\frac{1}{4}$	.06	.06	3 $\frac{1}{2}$	.40	.40
$\frac{3}{8}$	.06	.06	4	.50	.50
$\frac{1}{2}$	.06	.06	4 $\frac{1}{2}$	.50	.50
$\frac{3}{4}$	.06	.06	5	.60	.60
1	.06	.06	6	.80	.80
1 $\frac{1}{4}$	.08	.08	7	1.00	1.00
1 $\frac{1}{2}$	.10	.10	8	1.20	1.20
2	.14	.14	9	2.00	2.00
2 $\frac{1}{2}$	.20	.20	10	2.50	2.50
			12	3.50	3.50

WROUGHT PIPE

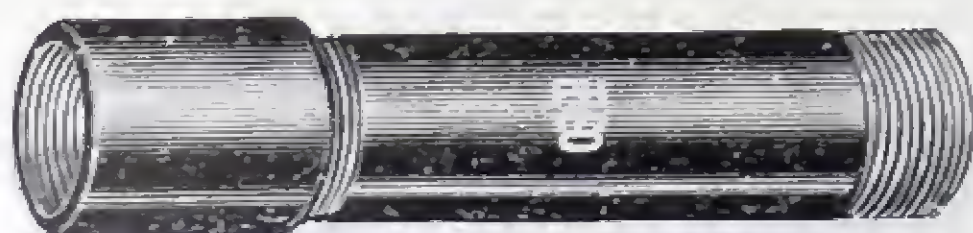


Fig. 2. EXTRA HEAVY

	Size Inches	List Price Per Foot	Inside Diameter Inches	Outside Diameter Inches	Nominal Weight Per Foot	No. of Threads Per Inch
Butt Welded	$\frac{1}{8}$	.12	.205	.405	.29	27
	$\frac{1}{4}$	.07 $\frac{1}{2}$	.294	.54	.54	18
	$\frac{3}{8}$	.07 $\frac{1}{2}$	.421	.675	.74	18
	$\frac{1}{2}$	.11	.542	.84	1.09	14
Butt Welded	$\frac{3}{4}$	.15	.736	1.05	1.39	14
	1	.22	.951	1.315	2.17	11 $\frac{1}{2}$
	1 $\frac{1}{4}$	.30	1.272	1.66	3.00	11 $\frac{1}{2}$
	1 $\frac{1}{2}$	.36 $\frac{1}{2}$	1.494	1.90	3.63	11 $\frac{1}{2}$
Lap Welded	2	.50 $\frac{1}{2}$	1.933	2.375	5.02	11 $\frac{1}{2}$
	2 $\frac{1}{2}$	.77	2.315	2.875	7.67	8
	3	1.03	2.892	3.50	10.25	8
	3 $\frac{1}{2}$	1.25	3.358	4.00	12.47	8
Lap Welded	4	1.50	3.818	4.50	14.97	8
	4 $\frac{1}{2}$	1.80	4.25	5.00	17.60	8
	5	2.08	4.813	5.563	20.54	8
	6	2.86	5.75	6.625	28.58	8
Lap Welded	7	3.81	6.625	7.625	37.67	8
	8	4.34	7.625	8.625	43.00	8

DOUBLE EXTRA HEAVY

	Size Inches	List Price Per Foot	Inside Diameter Inches	Outside Diameter Inches	Nominal Weight Per Foot	No. of Threads Per Inch
Butt Welded	1 $\frac{1}{2}$	.32	.244	.84	1.70	14
	$\frac{3}{4}$	.35	.422	1.05	2.44	14
	1	.37	.587	1.315	3.65	11 $\frac{1}{2}$
	1 $\frac{1}{4}$	.52 $\frac{1}{2}$	.885	1.66	5.20	11 $\frac{1}{2}$
Butt Welded	1 $\frac{1}{2}$	.65	1.088	1.90	6.45	11 $\frac{1}{2}$
	2	.91	1.49	2.375	9.48	11 $\frac{1}{2}$
	2 $\frac{1}{2}$	1.37	1.755	2.875	13.30	8
	3	1.86	2.284	3.50	17.70	8
Lap Welded	3 $\frac{1}{2}$	2.30	2.716	4.00	22.00	8
	4	2.76	3.136	4.50	24.70	8
	4 $\frac{1}{2}$	3.26	3.56	5.00	32.45	8
	5	3.86	4.063	5.563	37.10	8
Lap Welded	6	5.32	4.875	6.625	50.10	8
	7	6.35	5.98	7.625	60.34	8
	8	7.25	6.88	8.625	71.52	8

Specify Genuine Wrought Iron Pipe when such quality is required, otherwise Steel Pipe will be supplied.

Extra Heavy and Double Extra Heavy Pipe is supplied without Threads or Couplings unless otherwise specified.

WROUGHT IRON COUPLINGS

Standard
and
Extra
Heavy

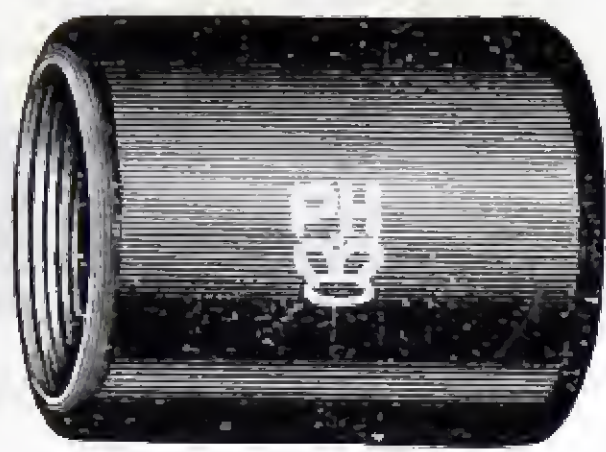
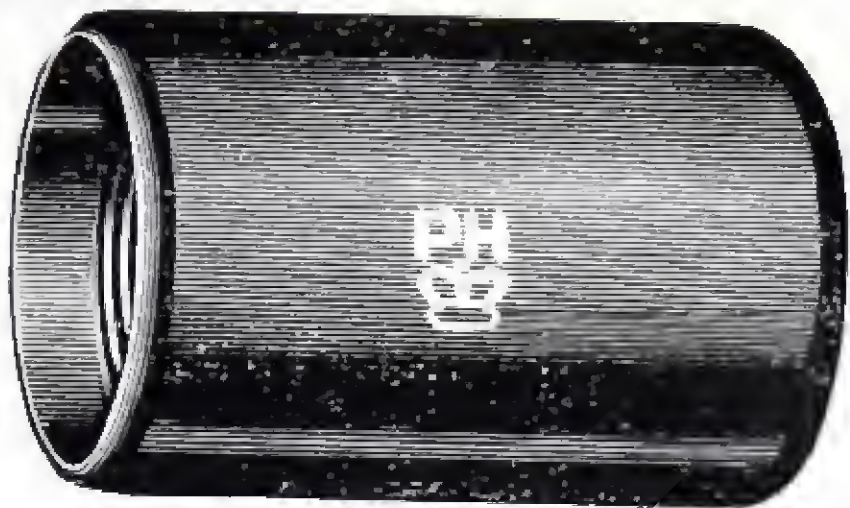


Fig. 3



Drive
Pipe

Fig. 4

Fig. 3. STANDARD WROUGHT IRON COUPLINGS

Size, inches.....	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Fig. 3—Black.....Each	.05	.05	.06	.07	.10	.13	.17	.21	.28
Fig. 3—Galv'd.....Each	.06	.06	.08	.10	.13	.18	.25	.32	.40
Size, inches.....	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	7	8
Fig. 3—Black.....Each	.40	.60	.80	1.00	1.50	1.65	2.40	3.25	4.25
Fig. 3—Galv'd.....Each	.55	.80	1.05	1.40	2.00	2.25	3.25	4.20	5.50

Fig. 3. EXTRA HEAVY WROUGHT IRON COUPLINGS

Size, inches.....	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Fig. 3—Right Hand, Black.. Each	.14	.20	.26	.34	.42	.56	.80	1.20	1.60	2.00
Fig. 3—Right Hand, Galv'd. Each	.20	.26	.36	.50	.64	.80	1.10	1.60	2.10	2.80
Fig. 3—R.&L. Hand, Black. Each	.22	.30	.40	.50	.60	1.00	1.70	2.40	3.20	4.00
Fig.3—R.&L.Hand, Galv'd. Each	.28	.36	.46	.66	.82	1.24	2.00	2.80	3.80	4.80

Size, inches.....	$4\frac{1}{2}$	5	6	7	8	9	10	11	12
Fig. 3—Right Hand, Black.... Each	3.00	3.00	4.80	6.50	8.50	11.00	15.00	20.00	20.00
Fig. 3—Right Hand, Galv'd. Each	4.00	4.50	6.50	8.40	11.00	14.00	19.50	25.70	27.30
Fig. 3—R. & L. Hand, Black.. Each	16.40	18.00	25.00	26.00	34.00	35.00	46.00	48.50	56.00
Fig. 3—R.&L. Hand, Galv'd Each	17.50	19.30	26.70	27.90	36.50	38.00	50.50	54.20	63.30

Fig. 4. DRIVE PIPE COUPLINGS

Size, inches.....	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$
Fig. 4—Right Hand, Black.....Each	.12	.15	.25	.30	.40	.60
Fig. 4—Right Hand, Galv'd.....Each	.16	.21	.37	.46	.57	.85
Fig. 4—R. & L. Hand, Black.....Each	.18	.23	.38	.45	.70	1.20
Fig. 4—R. & L. Hand, Galv'd.....Each	.25	.31	.53	.63	.98	1.70
Size, inches.....	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6
Fig. 4—Right Hand, Black.....Each	.80	1.30	1.50	2.00	2.40	2.80
Fig. 4—Right Hand, Galv'd.....Each	1.15	1.90	2.15	2.85	3.45	4.00
Fig. 4—R. & L. Hand, Black.....Each	1.60	2.60	3.00	7.75	8.50	9.75
Fig. 4—R. & L. Hand, Galv'd.....Each	2.25	3.65	4.20	9.15	10.50	12.00

WROUGHT NIPPLES

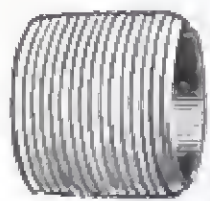


Fig. 5. CLOSE

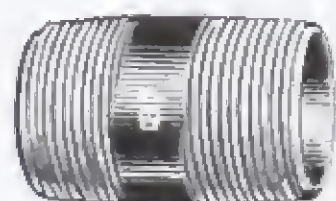


Fig. 6. SHORT



Fig. 8. LONG

BLACK IRON—RIGHT HAND

Length in Inches						Size, Inches	Prices		Prices of Extra Long Nipples											
Close	Short	Long					Close or Short	Long	Lengths in Inches											
									4	5	6	7	8	9	10	11	12			
							\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.
3/4	1 1/2	2	2 1/2	3	3 1/2	1/8	.04	.06	.07	.08	.10	.12	.14	.15	.17	.18	.19			
7/8	1 1/2	2	2 1/2	3	3 1/2	1/4	.04	.06	.07	.08	.10	.12	.14	.15	.17	.18	.19			
1	1 1/2	2	2 1/2	3	3 1/2	3/8	.04	.06	.07	.08	.10	.12	.14	.15	.17	.18	.19			
1 1/8	1 1/2	2	2 1/2	3	3 1/2	1/2	.05	.07	.08	.10	.12	.14	.16	.18	.20	.22	.23			
1 3/8	2	2 1/2	3	3 1/2	4	3/4	.06	.09	.....	.11	.13	.17	.18	.20	.22	.24	.26		
1 1/2	2	2 1/2	3	3 1/2	4	1	.08	.13	.....	.15	.18	.23	.25	.28	.31	.34	.36		
1 5/8	2 1/2	3	3 1/2	4	4 1/2	1 1/4	.11	.17	.....	.20	.24	.29	.33	.36	.40	.44	.47		
1 3/4	2 1/2	3	3 1/2	4	4 1/2	1 1/2	.13	.20	.....	.25	.29	.36	.40	.45	.50	.54	.59		
2	2 1/2	3	3 1/2	4	4 1/2	2	.18	.27	.....	.32	.38	.50	.54	.59	.65	.72	.77		
2 1/2	3	3 1/2	4	4 1/2	5	2 1/2	.39	.59	.....	.....	.68	.90	.97	1.06	1.17	1.26	1.35		
2 1/2	3	3 1/2	4	4 1/2	5	3	.48	.72	.....	.....	.85	1.08	1.20	1.33	1.45	1.58	1.70		
2 3/4	4	4 1/2	5	5 1/2	6	3 1/2	.75	1.05	.....	.....	.....	1.30	1.45	1.60	1.75	1.90	2.05		
3	4	4 1/2	5	5 1/2	6	4	.85	1.20	.....	.....	.....	1.52	1.69	1.87	2.05	2.22	2.40		
3	4	4 1/2	5	5 1/2	6	4 1/2	1.25	1.70	.....	.....	.....	2.25	2.50	2.75	2.95	3.17	3.40		
3 1/4	4 1/2	5	5 1/2	6	6 1/2	5	1.55	2.45	.....	.....	.....	2.58	2.83	3.10	3.35	3.60	3.85		
3 1/4	4 1/2	5	5 1/2	6	6 1/2	6	1.85	2.90	.....	.....	.....	3.05	3.35	3.70	4.00	4.30	4.65		
3 1/2	5	.....	.....	.....	.....	7	3.20	.....	.....	.....	3.60	4.05	4.45	4.90	5.30	5.75	6.15		
3 1/2	5	.....	.....	.....	.....	8	3.55	.....	.....	.....	4.05	4.55	5.05	5.50	6.00	6.50	7.00		
4	5	.....	.....	.....	.....	9	5.25	.....	.....	.....	.....	.....	6.50	7.10	7.75	8.40	9.00		
4	5	.....	.....	.....	.....	10	6.75	.....	.....	.....	.....	.....	8.25	8.90	9.70	10.40	11.15		
4	5	.....	.....	.....	.....	12	8.00	.....	.....	.....	.....	.....	10.00	10.80	11.75	12.70	13.65		

WROUGHT NIPPLES



Fig. 9. CLOSE



Fig. 10. SHORT



Fig. 11. LONG

BLACK IRON—RIGHT AND LEFT

Length in Inches						Size, Inches	Prices		Prices of Extra Long Nipples											
Close	Short	Long					Close or Short	Long	Lengths in Inches											
									4	5	6	7	8	9	10	11	12			
							\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.
$\frac{3}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	$\frac{1}{8}$	.05	.08	.09	.11	.13	.16	.18	.20	.23	.25	.27		
$\frac{7}{8}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	$\frac{1}{4}$	.05	.08	.09	.11	.13	.16	.18	.20	.23	.25	.27		
1	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	$\frac{3}{8}$	.05	.08	.09	.11	.13	.16	.18	.20	.23	.25	.27		
$1\frac{1}{8}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	$\frac{1}{2}$	.07	.10	.11	.13	.16	.18	.21	.24	.27	.29	.31		
$1\frac{3}{8}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$\frac{3}{4}$	.08	.12	.....	.15	.17	.23	.25	.27	.29	.32	.35		
$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	1	.11	.18	.....	.20	.24	.31	.33	.37	.41	.45	.48		
$1\frac{5}{8}$	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	$1\frac{1}{4}$	.15	.23	.....	.27	.32	.39	.45	.50	.55	.60	.65		
$1\frac{3}{4}$	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	$1\frac{1}{2}$	.18	.27	.....	.34	.39	.48	.52	.60	.67	.72	.80		
2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	2	.24	.36	.....	.43	.51	.67	.72	.80	.87	.96	1.03		
$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	$2\frac{1}{2}$	.52	.79	.....	.....	.91	1.20	1.30	1.40	1.55	1.68	1.80		
$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	3	.65	.96	.....	.....	1.13	1.44	1.60	1.77	1.93	2.10	2.27		
$2\frac{3}{4}$	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6	$3\frac{1}{2}$	1.00	1.40	.....	.....	.....	1.75	1.95	2.15	2.35	2.55	2.75		
3	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6	4	1.15	1.60	.....	.....	.....	2.00	2.25	2.50	2.75	3.00	3.25		

WROUGHT NIPPLES



Fig. 12. CLOSE

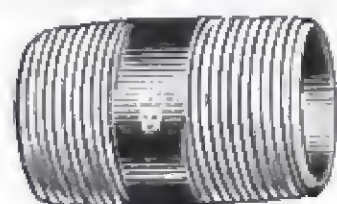


Fig. 13. SHORT



Fig. 14. LONG

GALVANIZED—RIGHT HAND

Length in Inches						Size, Inches	Prices		Prices of Extra Long Nipples											
Close	Short	Long					Close or Short	Long	Lengths in Inches											
									4	5	6	7	8	9	10	11	12			
							\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.	\$ c.		
$\frac{3}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	$\frac{1}{8}$	.06	.11	.12	.15	.17	.21	.24	.26	.29	.31	.34		
$\frac{7}{8}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	$\frac{1}{4}$	.06	.11	.12	.15	.17	.21	.24	.26	.29	.31	.34		
1	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	$\frac{3}{8}$	.06	.11	.12	.15	.17	.21	.24	.26	.29	.31	.34		
$1\frac{1}{8}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	$\frac{1}{2}$	.06	.11	.13	.16	.18	.23	.26	.28	.31	.33	.36		
$1\frac{3}{8}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$\frac{3}{4}$	.08	.14	.....	.18	.21	.26	.29	.32	.35	.38	.41
$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	1	.11	.19	.....	.24	.28	.34	.38	.42	.47	.51	.55	
$1\frac{5}{8}$	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	$1\frac{1}{4}$	.17	.29	.....	.32	.38	.45	.51	.57	.63	.69	.75
$1\frac{3}{4}$	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	$1\frac{1}{2}$	.21	.35	.....	.39	.46	.55	.63	.70	.77	.84	.91
2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	2	.27	.47	.....	.52	.61	.74	.83	.93	1.03	1.13	1.23	
$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	$2\frac{1}{2}$	.56	.86	.....	.....	1.00	1.26	1.41	1.56	1.71	1.86	2.01
$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	3	.70	1.10	.....	.....	1.30	1.60	1.80	2.00	2.20	2.40	2.60	
$2\frac{3}{4}$	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6	$3\frac{1}{2}$	1.20	1.70	.....	.....	.....	2.10	2.35	2.60	2.85	3.15	3.40
3	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6	4	1.35	1.87	.....	.....	.....	2.30	2.60	2.90	3.20	3.50	3.80
3	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6	$4\frac{1}{2}$	1.85	2.60	.....	.....	.....	3.30	3.65	4.05	4.45	4.85	5.25
$3\frac{1}{4}$	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6	$6\frac{1}{2}$	5	2.30	3.15	.....	.....	.....	3.75	4.20	4.60	5.00	5.40	5.85
$3\frac{1}{4}$	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6	$6\frac{1}{2}$	6	2.80	4.25	.....	.....	.....	4.50	5.00	5.55	6.05	6.60	7.15
$3\frac{1}{2}$	5	.....	.....	.....	.....	7	4.25	.....	.....	.....	.....	4.95	5.65	6.35	7.05	7.75	8.45
$3\frac{1}{2}$	5	.....	.....	.....	.....	8	5.00	.....	.....	.....	.....	5.80	6.65	7.50	8.35	9.25	10.10

WROUGHT NIPPLES



Fig. 15. CLOSE

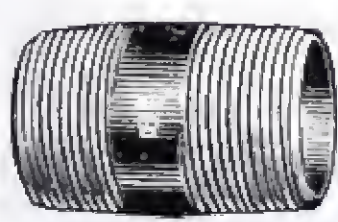


Fig. 16. SHORT



Fig. 17. LONG

GALVANIZED—RIGHT AND LEFT

Length in Inches						Size, Inches	Prices		Prices of Extra Long Nipples													
Close	Short	Long					Close or Short	Long	Lengths in Inches													
									4	5	6	7	8	9	10	11	12					
							\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.	\$	c.		
¾	1½	2	2½	3	3½	⅛	.08	.13	.15	.18	.21	.26	.29	.32	.37	.40	.43					
⅞	1½	2	2½	3	3½	¼	.08	.13	.15	.18	.21	.26	.29	.32	.37	.40	.43					
1	1½	2	2½	3	3½	⅜	.08	.13	.15	.18	.21	.26	.29	.32	.37	.40	.43					
1⅛	1½	2	2½	3	3½	½	.11	.16	.18	.21	.26	.29	.34	.38	.43	.46	.50					
1⅜	2	2½	3	3½	4	¾	.13	.19	.....	.24	.27	.37	.40	.43	.46	.51	.56			
1½	2	2½	3	3½	4	1	.18	.29	.....	.32	.38	.50	.53	.59	.66	.72	.77			
1⅝	2½	3	3½	4	4½	1¼	.24	.37	.....	.43	.51	.62	.72	.80	.88	.96	1.04			
1¾	2½	3	3½	4	4½	1½	.29	.43	.....	.54	.62	.77	.83	.96	1.07	1.15	1.28			
2	2½	3	3½	4	4½	2	.39	.57	.....	.69	.82	1.07	1.15	1.28	1.39	1.54	1.65			
2½	3	3½	4	4½	5	2½	.83	1.25	.....	.....	1.46	1.92	2.08	2.24	2.48	2.69	2.88			
2½	3	3½	4	4½	5	3	1.04	1.54	.....	.....	1.81	2.30	2.56	2.83	3.09	3.36	3.63			
2¾	4	4½	5	5½	6	3½	1.60	2.24	.....	.....	.....	2.80	3.12	3.44	3.76	4.08	4.40		
3	4	4½	5	5½	6	4	1.84	2.56	.....	.....	.....	3.20	3.60	4.00	4.40	4.80	5.20		

MALLEABLE IRON NIPPLES

RIGHT AND LEFT, WITH HEXAGON CENTRE



Fig. 18

Size, inches.....	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Fig. 18—Each..	.20	.20	.20	.25	.30	.40	.50	.70	1.10	1.50	1.90	2.40

LONG SCREWS

WITH COUPLING AND LOCK-NUT, FACED



Fig. 19

Size, inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Fig. 19—Black. Each	.30	.35	.40	.55	.75	1.00	1.30	1.70	2.70	3.70	5.40	6.60
Fig. 19—Galv'd. Each	.35	.40	.50	.66	1.00	1.25	1.60	2.10	3.10	4.70	6.50	7.75
Standard length, inches..	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	$5\frac{1}{2}$	6	7	8	$8\frac{1}{2}$	9

Long Screws, longer than Standard, are made to order and charged as Cut Pipe. Threads, Couplings and Lock-Nuts extra. In ordering, specify length of Thread wanted.

Long Screws made to order from Extra Heavy Pipe.

LOCK-NUT OR TANK NIPPLES



Fig. 20

Not over 6 inches long.

Size, inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Fig. 20—Black Each	.50	.50	.55	.65	.70	.90	.95	1.10	1.50	1.75
Fig. 20—Galv'd Each	.65	.65	.75	.80	1.00	1.15	1.25	1.45	2.10	2.50

WROUGHT PIPE BENDS

QUARTER BEND



Fig. 21

Size, inches.....	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Fig. 21.....Each	.45	.55	.75	1.25	2.00	3.25
Radius, inches.....	2	$2\frac{1}{4}$	$2\frac{1}{2}$	$4\frac{3}{4}$	$6\frac{3}{4}$	$6\frac{3}{4}$
Centre to end, inches.....	$3\frac{1}{2}$	$3\frac{3}{4}$	$4\frac{1}{4}$	$6\frac{1}{2}$	$8\frac{1}{2}$	$9\frac{1}{2}$

PIPE BENDS



Fig. 22



Fig. 23



Fig. 24



Fig. 25



Fig. 26



Fig. 27

PRICES ON APPLICATION

CAST IRON SOIL PIPE AND FITTINGS

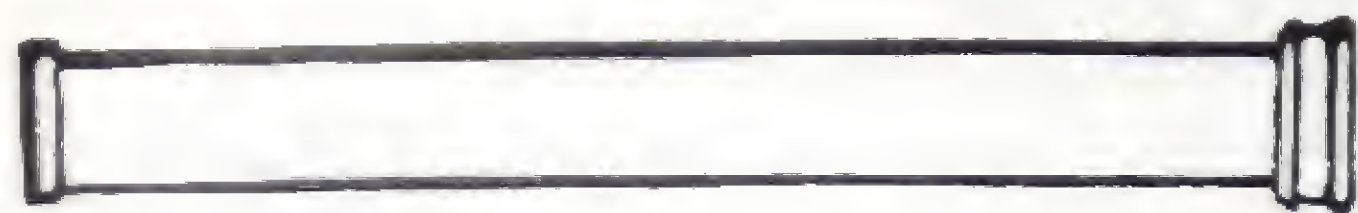


Fig. 28 Soil Pipe



Fig. 29 Double Hub Pipe

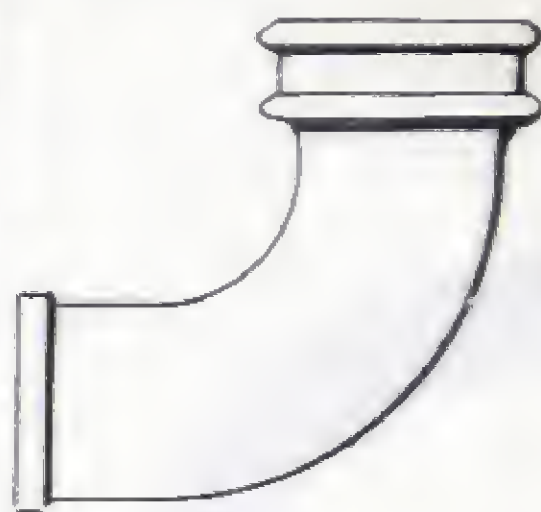


Fig. 30
 $\frac{1}{4}$ Bend

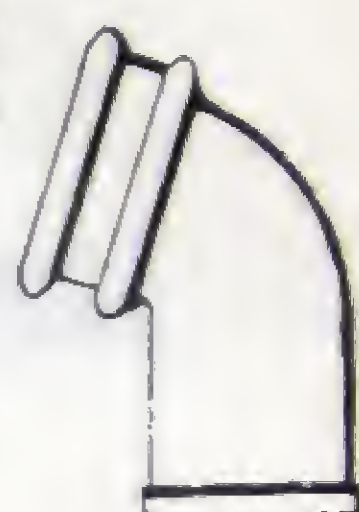


Fig. 31
 $\frac{1}{8}$ Bend



Fig. 32
 $\frac{1}{4}$ Bend



Fig. 33
 $\frac{1}{8}$ Bend



Fig. 34
 $\frac{1}{2}$ Bend

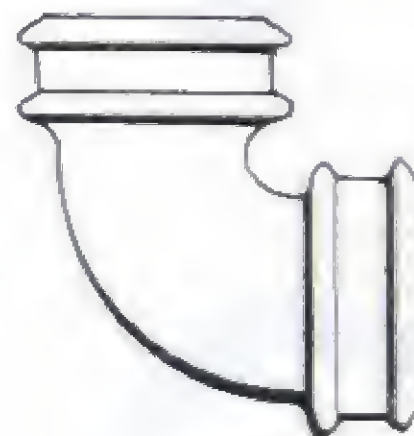


Fig. 35
 $\frac{1}{4}$ Bend D. H.

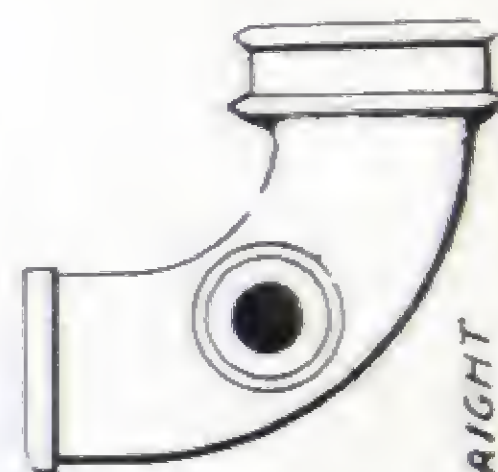


Fig. 36
 $\frac{1}{4}$ Bend, Right or Left

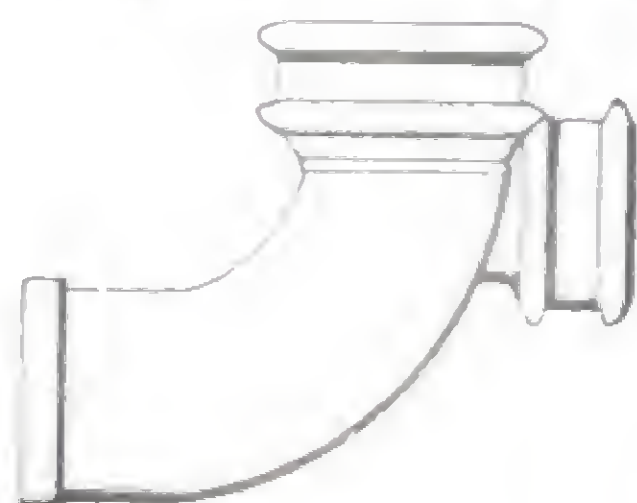


Fig. 37
 $\frac{1}{4}$ Bend Heel Outlet



Fig. 38
4' Long Bend

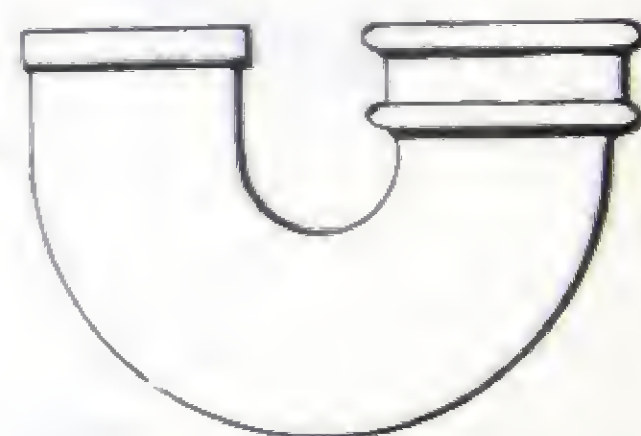


Fig. 39
Return Bend S. H.

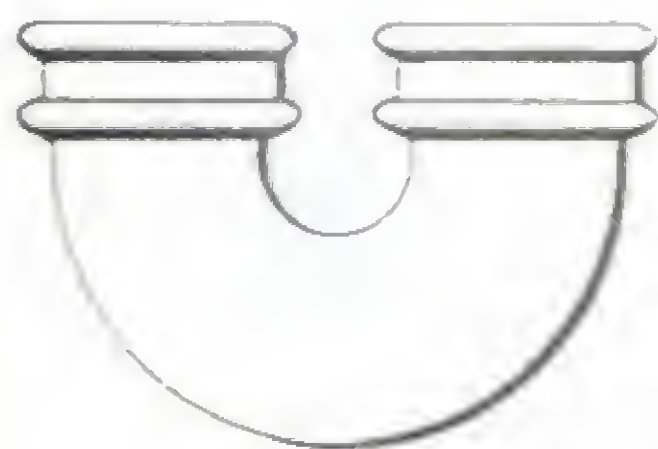


Fig. 40
Return Bend D. H.

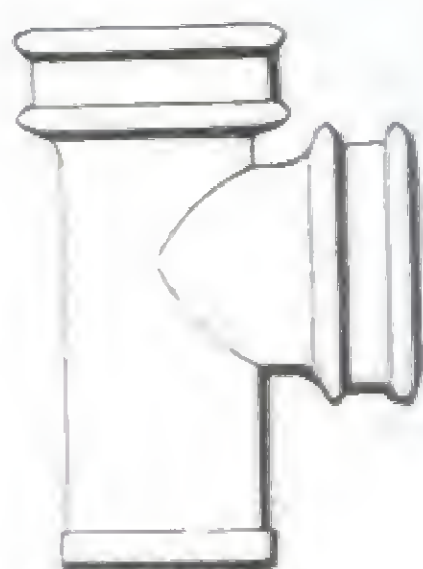


Fig. 41
Tee



Fig. 42
T. Y.

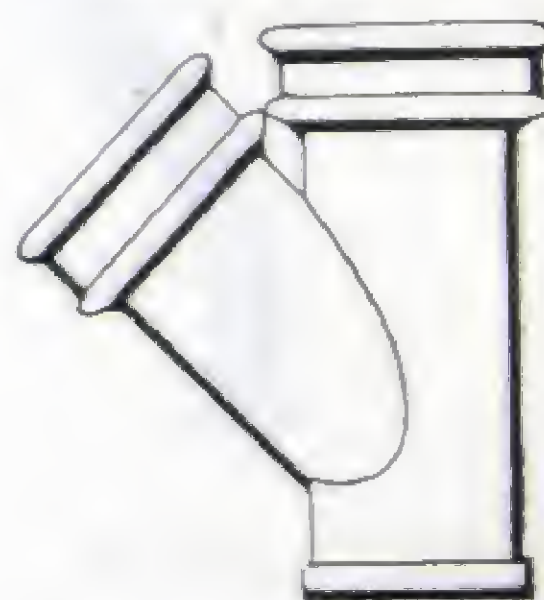


Fig. 43
Y

CAST IRON SOIL PIPE AND FITTINGS

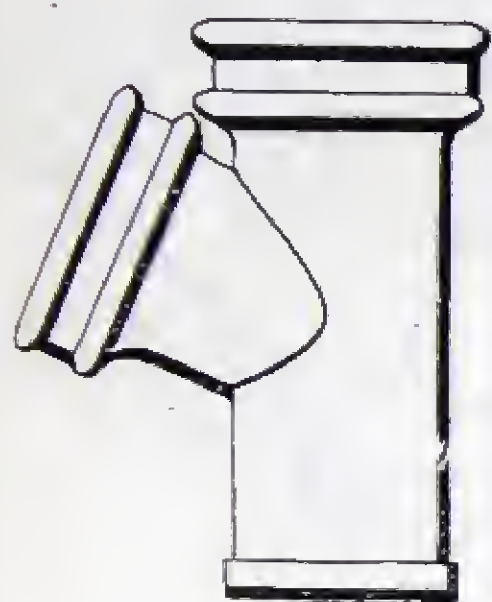


Fig. 44
1/2 Y

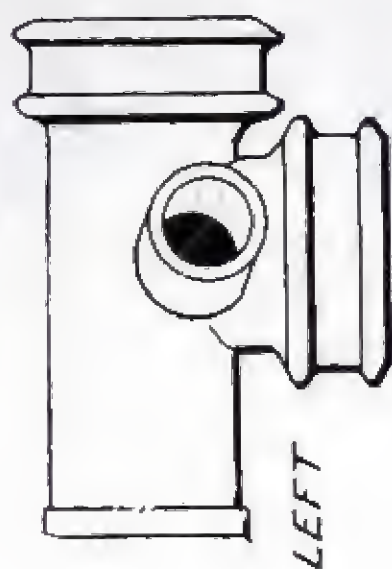


Fig. 45
Outlet Tee

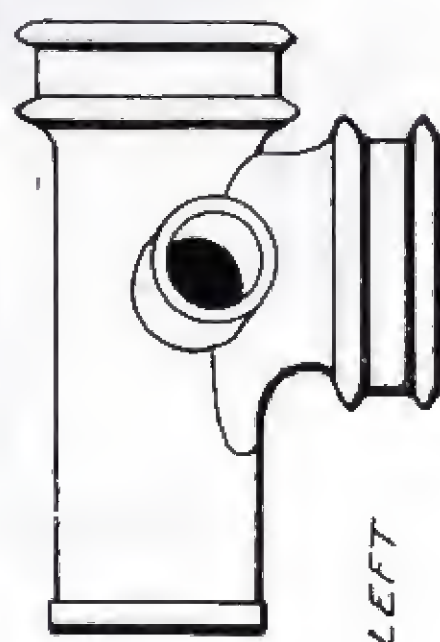


Fig. 46
Outlet TY

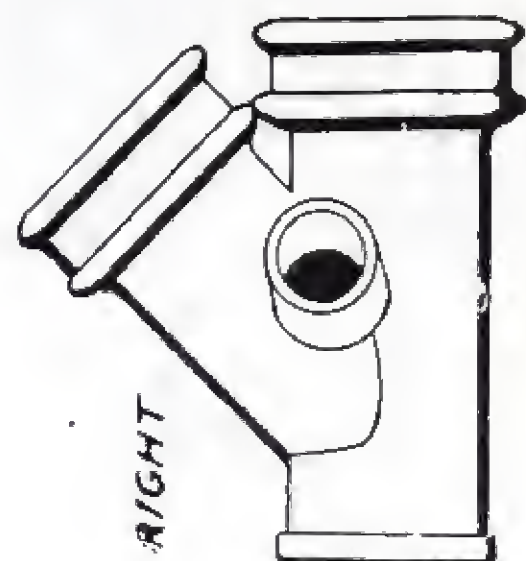


Fig. 47
Outlet Y

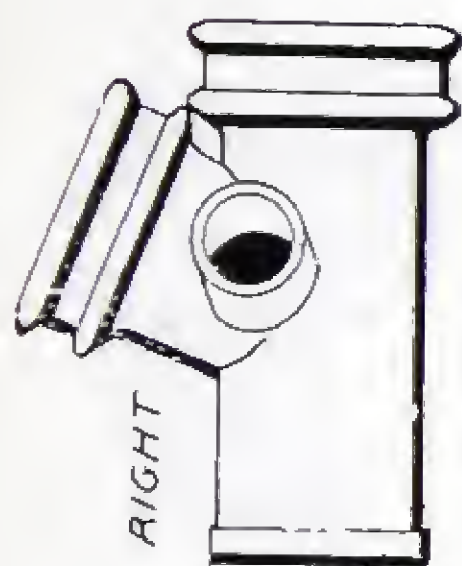


Fig. 48
Outlet 1/2 Y

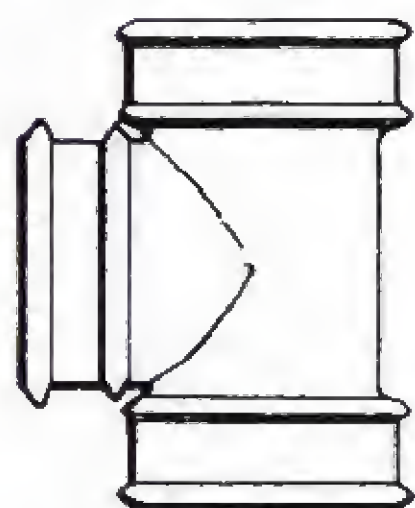


Fig. 49
Tee D. H.

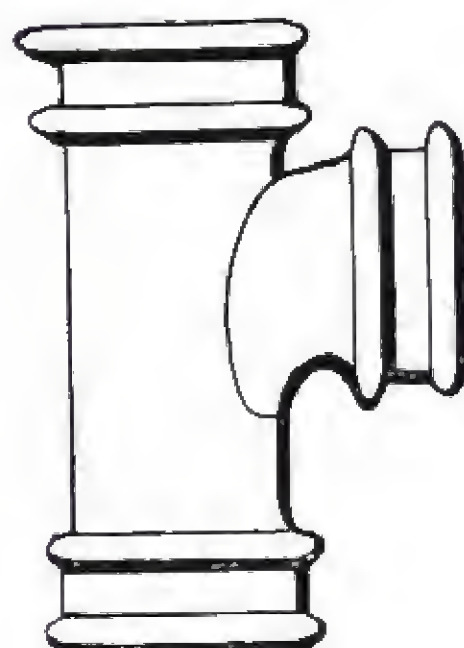


Fig. 50
Ty D. H.

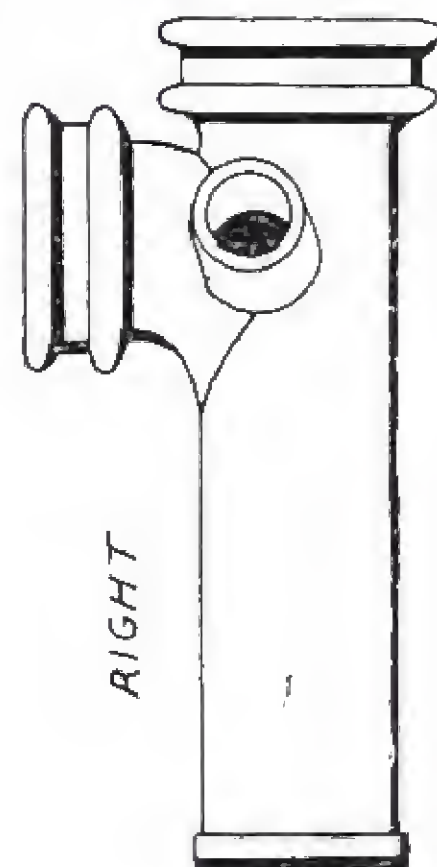


Fig. 51
Long Outlet Ty

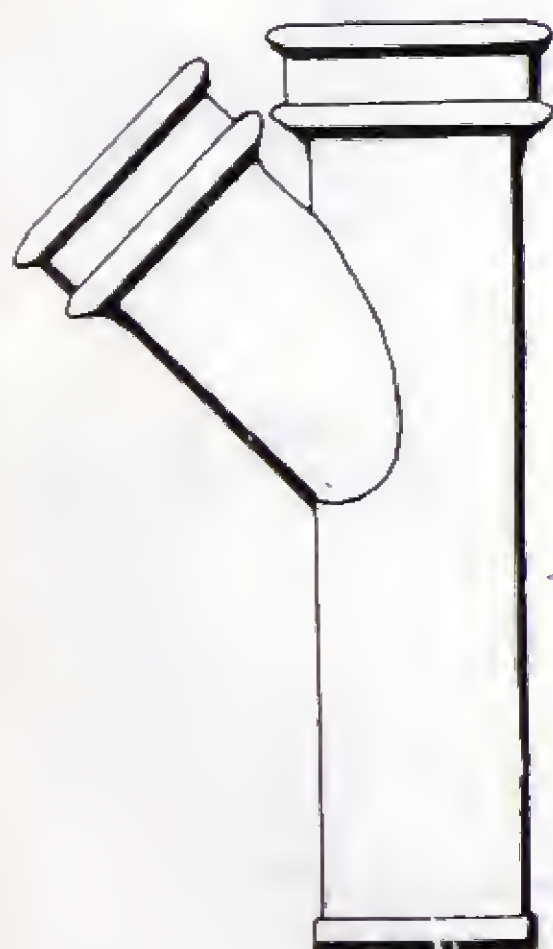


Fig. 52
Long Y

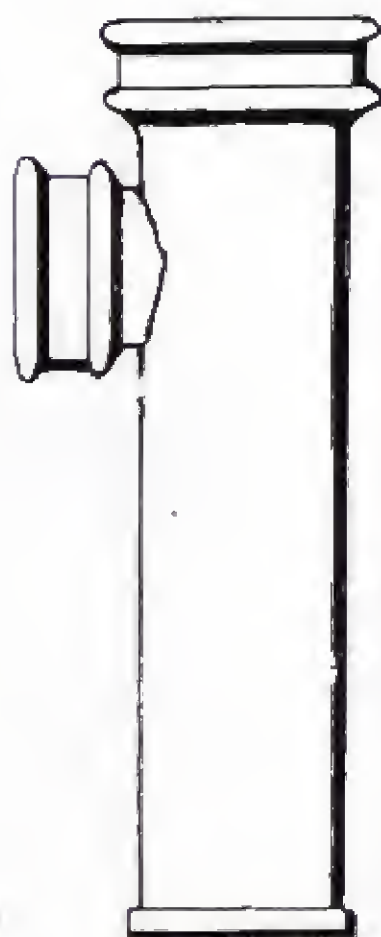


Fig. 53
Long Tee

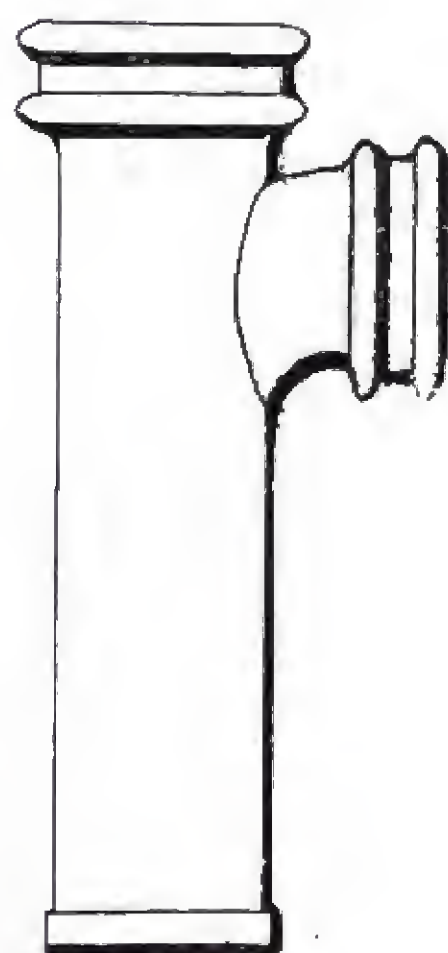


Fig. 54
Long Ty

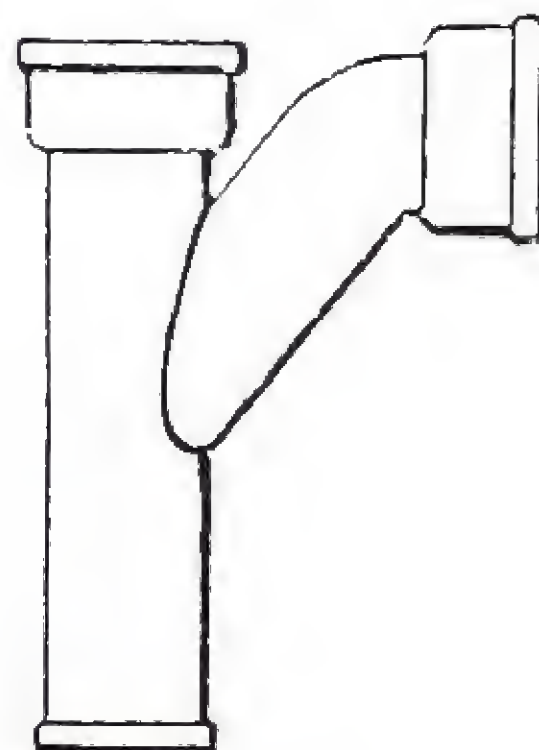


Fig. 55
Y and 1/8 Bend

CAST IRON SOIL PIPE AND FITTINGS

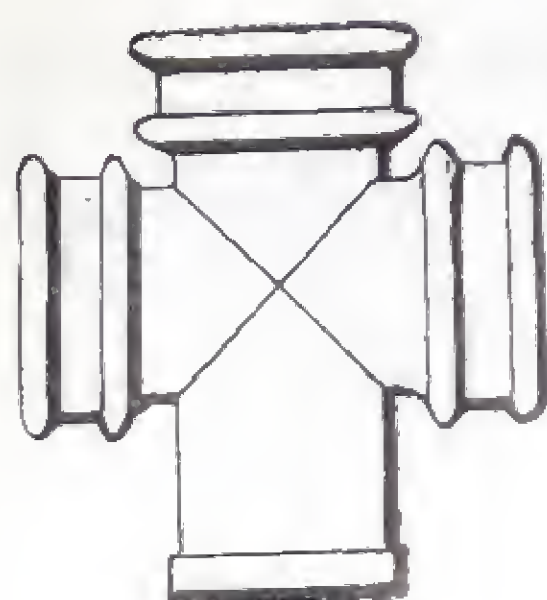


Fig. 56
Cross

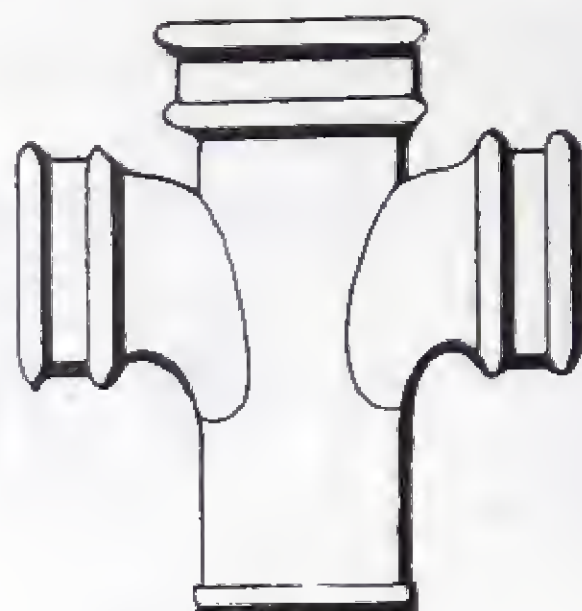


Fig. 57
Double Ty

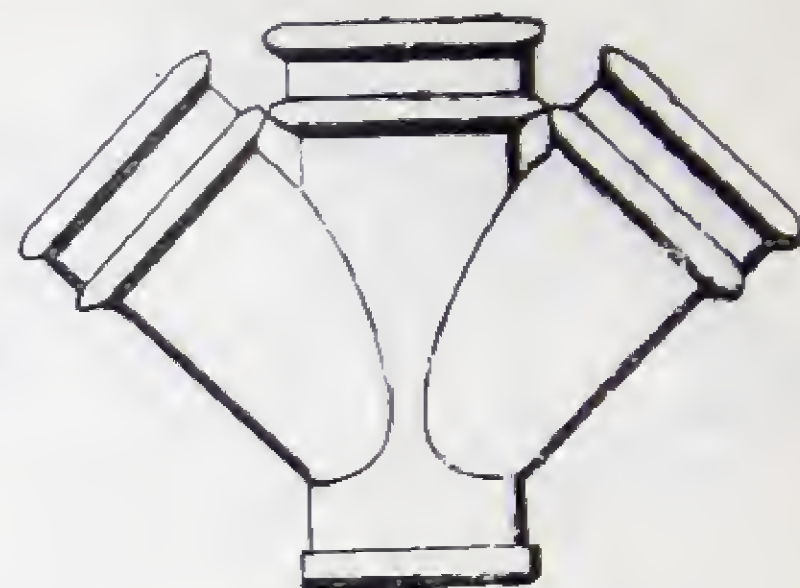


Fig. 58
Double Y

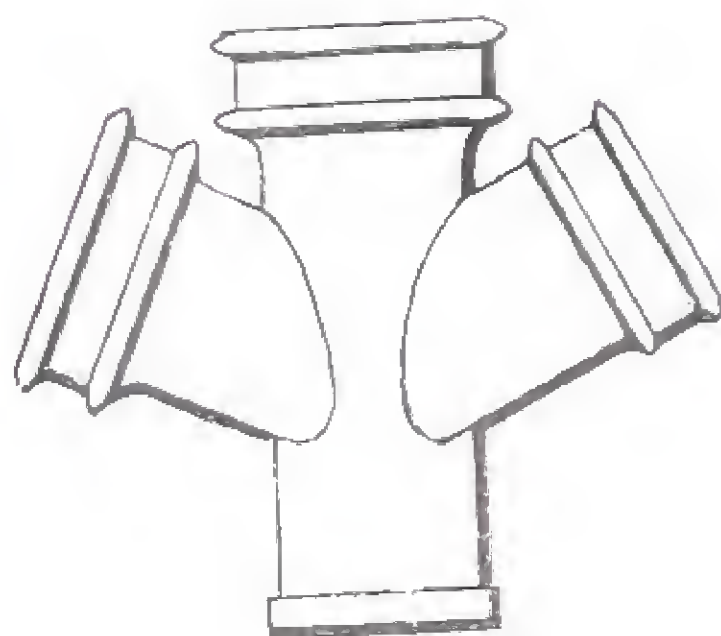


Fig. 59
Double 1/2 Y

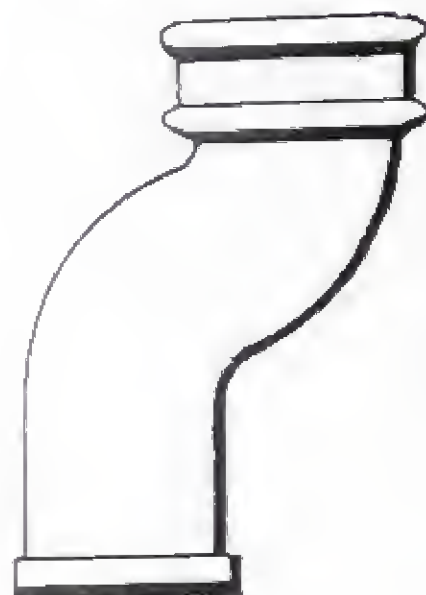


Fig. 60
Offset

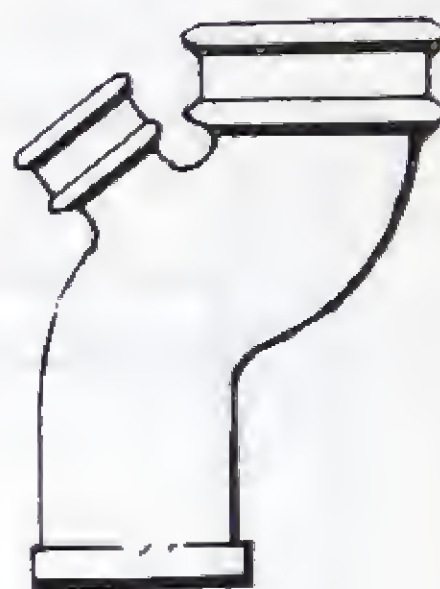


Fig. 61
Outlet Offset



Fig. 62
Plug

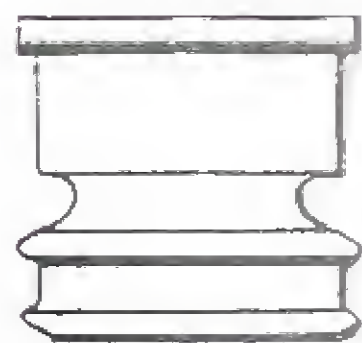


Fig. 63
Reducer



Fig. 64
Increaser

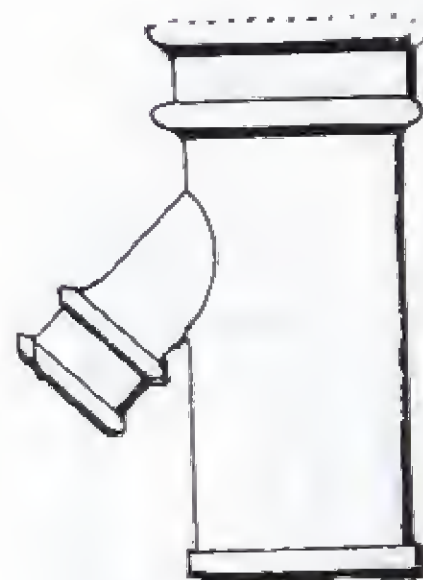


Fig. 65
Inverted Y



Fig. 70
Handy Vent Cap



Fig. 67
Vent Cap

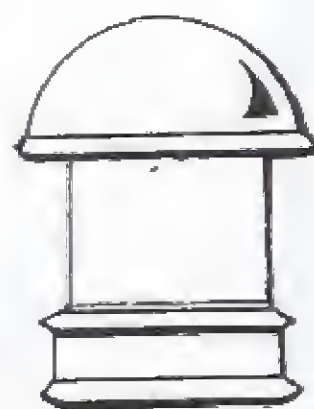


Fig. 68
Hub Vent Cap



Fig. 69
Patent Vent Cap

CAST IRON SOIL PIPE AND FITTINGS

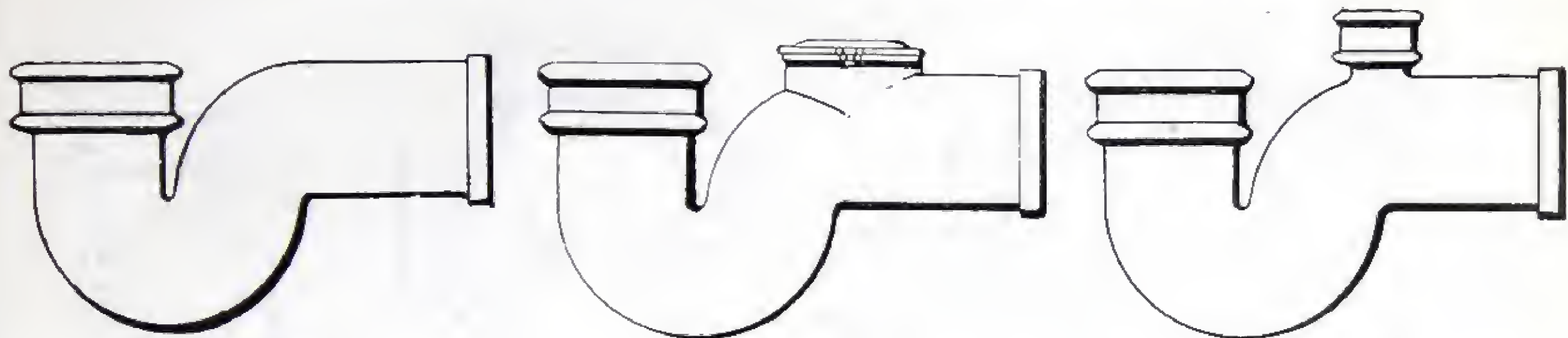


Fig. 71
"P" Trap

Fig. 72
Hand Hole "P" Trap

Fig. 80
Hub Vent "P" Trap

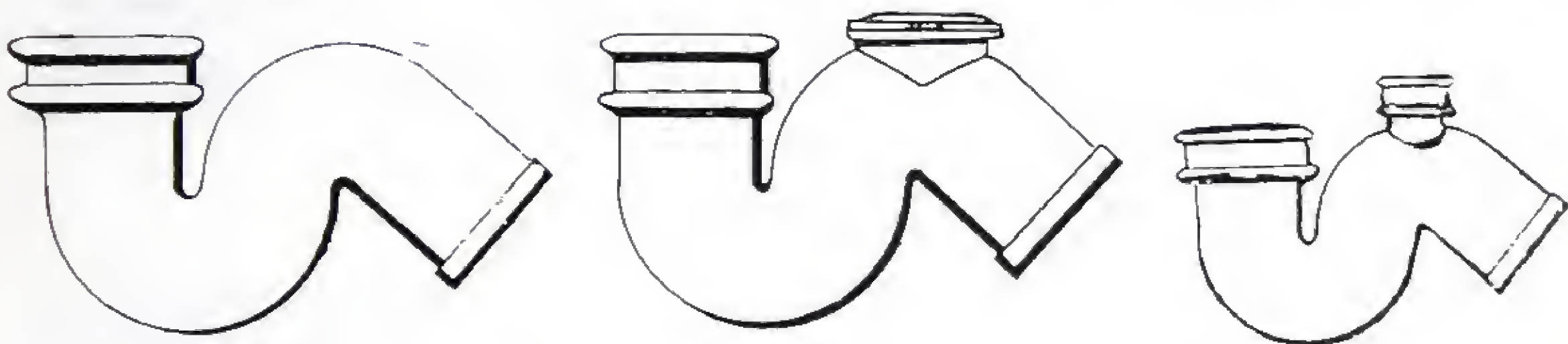


Fig. 89
 $\frac{3}{4}$ "S" Trap

Fig. 90
Hand Hole $\frac{3}{4}$ "S" Trap

Fig. 91
Hub Vent $\frac{3}{4}$ "S" Trap

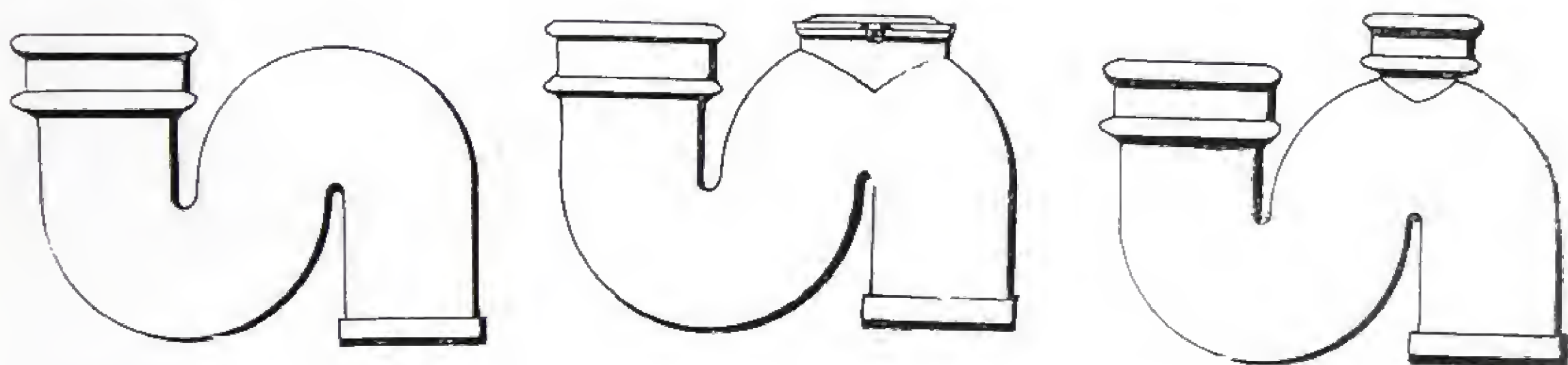


Fig. 92
"S" Trap

Fig. 93
Hand Hole "S" Trap

Fig. 94
Hub Vent "S" Trap

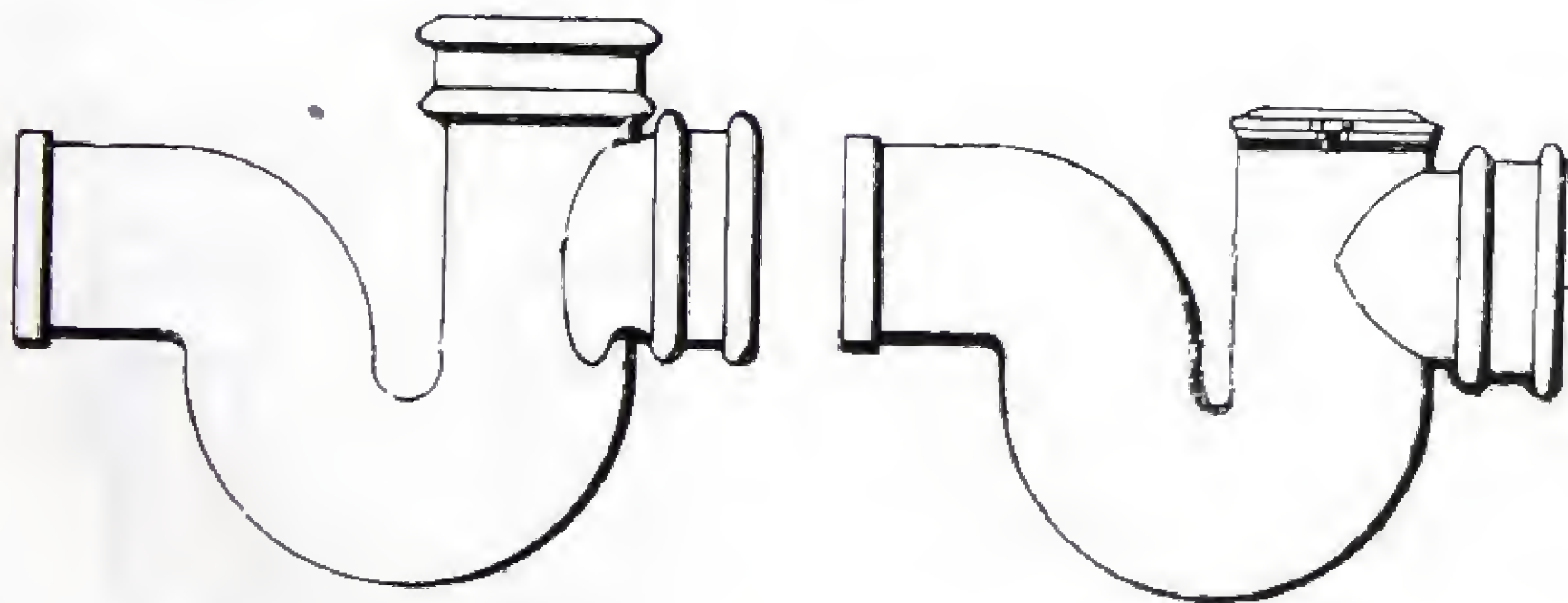


Fig. 95
Hub Vent Running Trap

Fig. 96
Hand Hole Running Trap

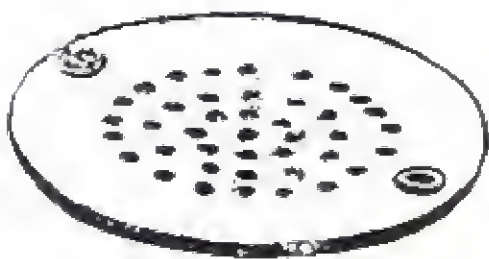


Fig. 97
Floor Grate



Fig. 98
Sink Coupling

CAST IRON SOIL PIPE AND FITTINGS

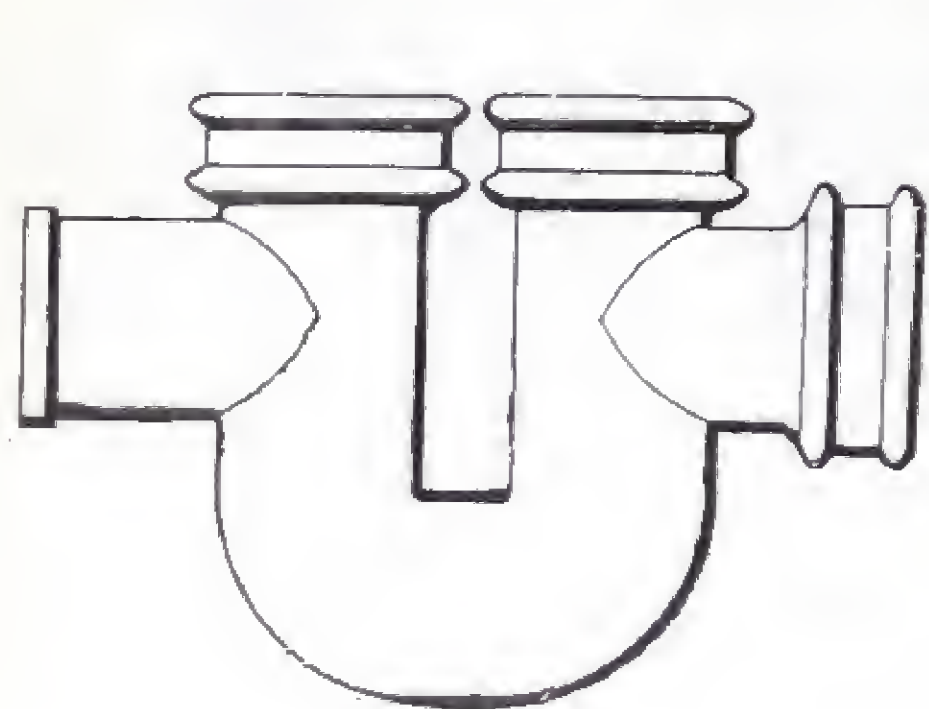


Fig. 99
Double Vent Running Trap

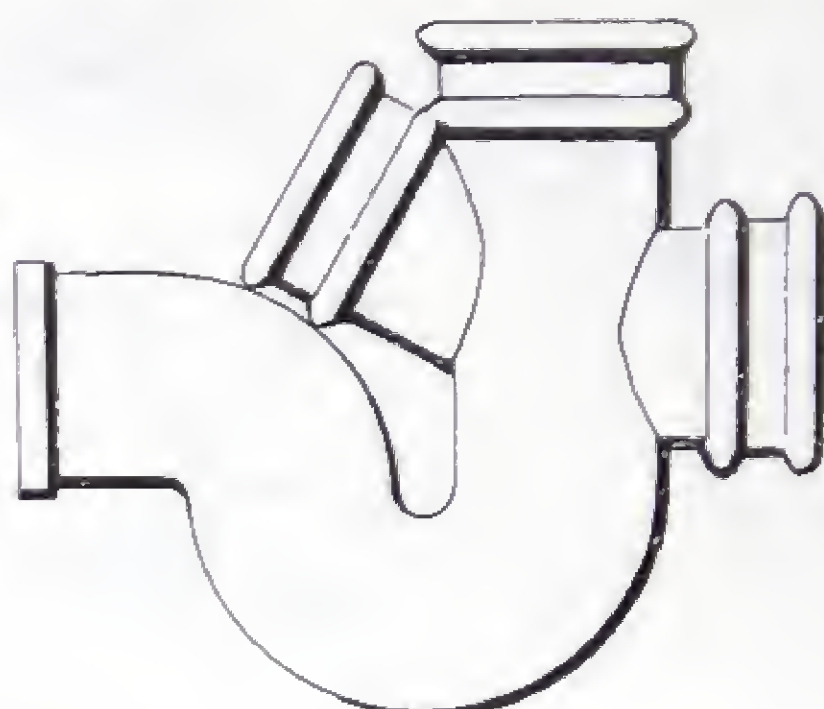


Fig. 100
Y Branch Running Trap

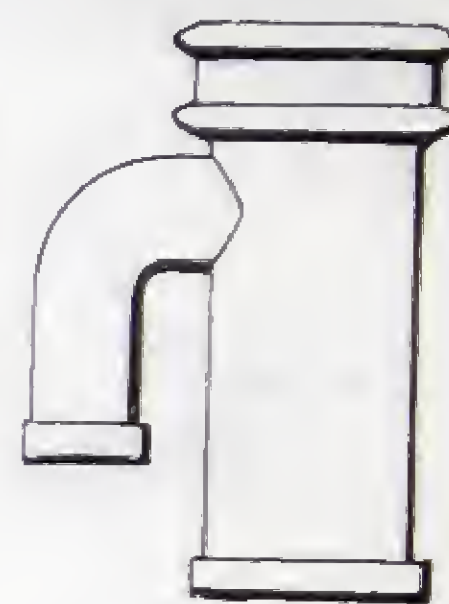


Fig. 101
Vent Branch

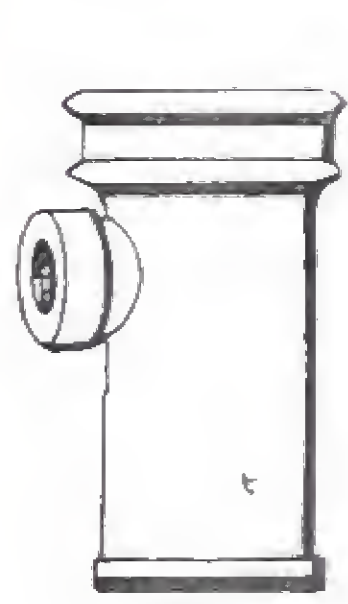


Fig. 102
Tapped Tee



Fig. 103
Tapped Cross

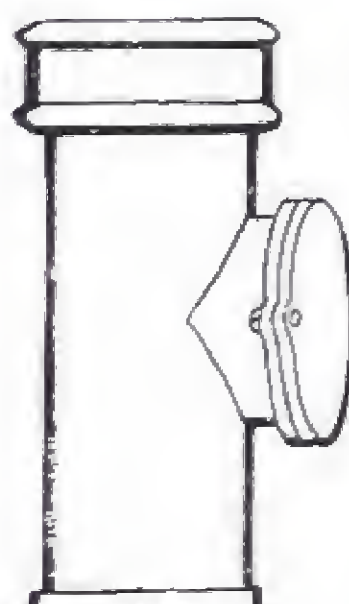


Fig. 104
4" Cleanout

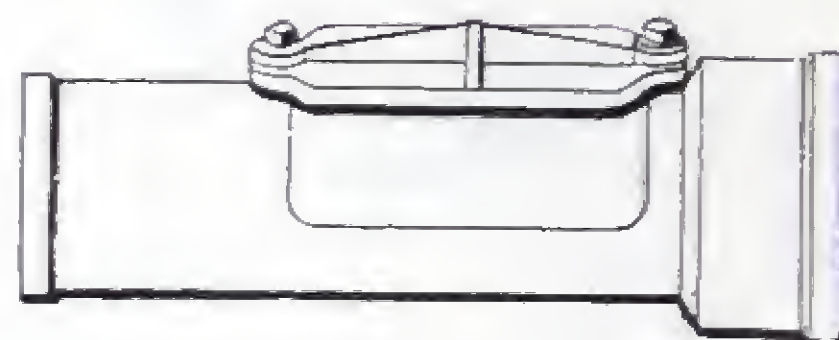


Fig. 105
Barrett Cleanout



Fig. 115
Pipe Rest

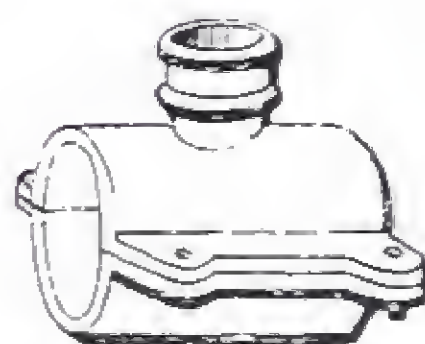


Fig. 116
Outlet Pipe Band

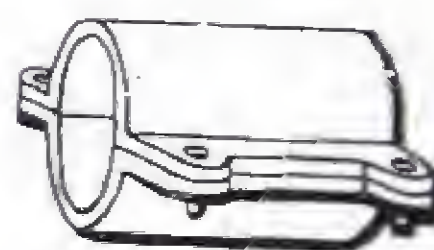


Fig. 121
Pipe Band



Fig. 122
Tapped Increaser



Fig. 123
Single Hub



Fig. 124
Double Hub



Fig. 125
Sleeve



Fig. 126
Roof Tee

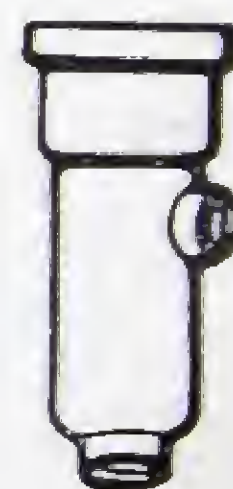


Fig. 127
Tapped Tee (Roof)

CAST IRON SOIL PIPE AND FITTINGS

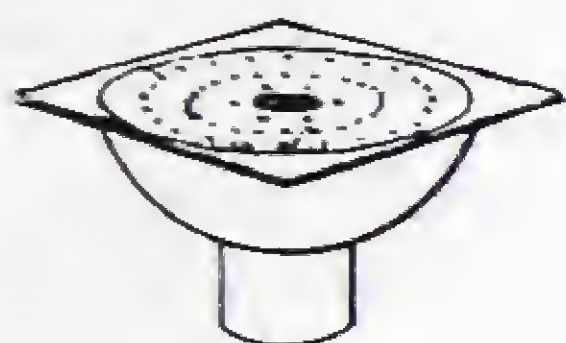


Fig. 128
Bell Trap
6 x 6, 9 x 9, 12 x 12

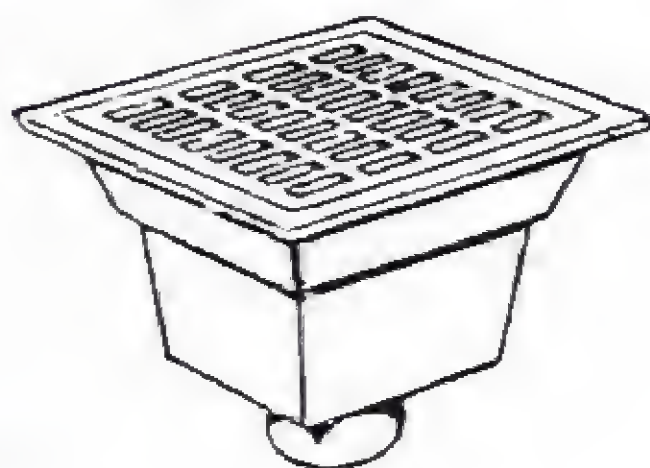


Fig. 129
Bell Trap
16 x 16

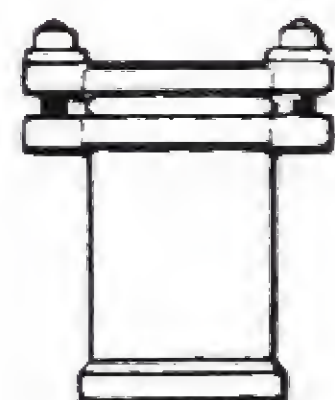


Fig. 130
Cleanout Screw

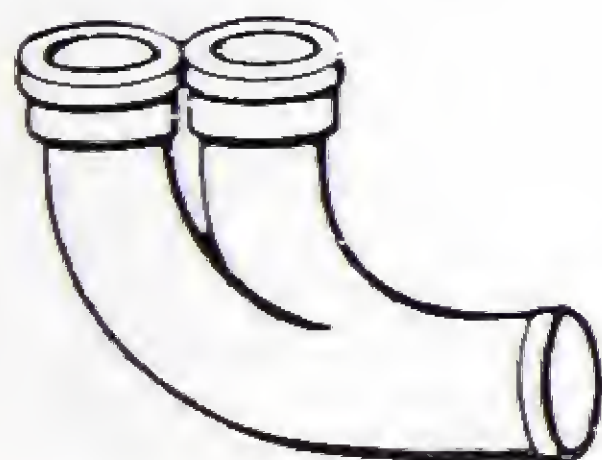


Fig. 131
Stack Fitting or Base End

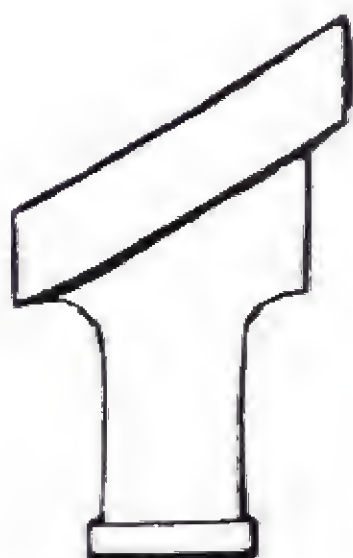


Fig. 132
Roof Terminal



Fig. 133
Tapped Y

CAST IRON SOIL PIPE AND FITTINGS

SOIL PIPE—Fig. 28

Size..... Inches	2	3	4	5	6	8
Light..... Per Foot	.26	.32	.42	.60	.75	
Medium..... Per Foot	.32	.50	.68	.90	1.05	
Extra Heavy..... Per Foot	.40	.65	.85	1.15	1.35	2.25

DOUBLE HUB PIPE—Fig. 29

Size..... Inches	2	3	4	5	6	8
Light..... Per Length	1.60	1.90	2.40	3.50	4.50	
Medium..... Per Length	1.90	2.80	3.70	5.00	6.00	
Extra Heavy..... Per Length	2.30	3.55	4.55	6.25	7.50	12.75

4th, 5th, 6th, 8th, 12th and 16th Bends. Figs. 30 to 34

Size..... Inches	2	3	4	5	6	8
Medium..... Each	.55	.85	1.15	2.00	2.75	
Extra Heavy..... Each	.65	1.00	1.30	2.20	3.25	5.00

4-in. LONG BENDS. Fig. 38

Size..... Inches	12	18	24	30	36
Medium..... Each	2.90	3.50	4.40	5.00	6.00
Extra Heavy..... Each	3.50	4.25	5.25	6.00	7.00

RETURN BENDS. Fig. 39

Size..... Inches	2	3	4	5	6
Medium..... Each	.95	1.70	2.40	3.60	4.50
Extra Heavy..... Each	1.05	1.80	2.65	4.15	5.25

T's, Y's, HALF Y's AND TY's. Figs. 41 to 44

Size..... Inches	2 x 2	3 x 2	3 x 3	4 x 2	4 x 3	4 x 4
Medium..... Each	.85	1.45	1.45	2.10	2.10	2.10
Extra Heavy..... Each	1.00	1.65	1.65	2.40	2.40	2.40
Size..... Inches	5 x 2	5 x 3	5 x 4	5 x 5	6 x 2	6 x 3
Medium..... Each	2.80	2.80	2.80	2.80	4.00	4.00
Extra Heavy..... Each	3.30	3.30	3.30	3.30	4.50	4.50
Size..... Inches	6 x 4	6 x 5	6 x 6	8 and Reducing Sizes		
Medium..... Each	4.00	4.00	4.00			
Extra Heavy..... Each	4.50	4.50	4.50	9.00		

All fittings with Double Hubs, add 30 cents to list.

All fittings with Inlets, Hand Holes and Hub Vents, add \$1.00 to list.

CAST IRON SOIL PIPE AND FITTINGS

LONG T's, Y's, HALF Y's AND TY's. Fig. 52

Size.....Inches	4 x 18	4 x 24	4 x 30	4 x 36	5 x 18	5 x 24
Medium .....Each	4.45	5.20	5.95	6.70	5.95	6.95
Extra Heavy.....Each	5.35	6.10	6.85	7.60	7.10	8.10
Size.....Inches	5 x 30	5 x 36	6 x 18	6 x 24	6 x 30	6 x 36
Medium.....Each	7.95	8.95	7.75	8.75	9.75	10.75
Extra Heavy.....Each	9.10	10.10	8.75	9.75	10.75	11.75

LONG Y AND 8TH BENDS. Fig. 55

Size.....Inches	4 x 4	4 x 4 x 24	4 x 4 x 27	4 x 4 x 30	4 x 4 x 36
Extra Heavy.....Each	5.00	6.00	7.15	8.15	9.15

DOUBLE Y's, HALF Y's, TY's AND CROSSES. Figs. 56 to 59

Size.....Inches	2 x 2	3 x 2	3 x 3	4 x 2	4 x 3	4 x 4
Medium.....Each	1.70	2.40	2.40	3.10	3.10	3.10
Extra Heavy.....Each	2.00	2.75	2.75	3.60	3.60	3.60
Size.....Inches	5 x 2	5 x 3	5 x 4	5 x 5	6 x 2	6 x 3
Medium.....Each	3.90	3.90	3.90	3.90	6.00	6.00
Extra Heavy.....Each	4.45	4.45	4.45	4.45	6.75	6.75

Size.....Inches	6 x 4	6 x 5	6 x 6	8 and Reducing Sizes
Medium.....Each	6.00	6.00	6.00	11.25
Extra Heavy.....Each	6.75	6.75	6.75	13.50

REDUCERS. Fig. 63

Size.....Inches	3 x 2	4 x 2-3	5 x 3-4	6 x 4-5	8
Medium.....Each	.85	1.10	1.45	1.75	
Extra Heavy.....Each	1.00	1.25	1.75	2.25	4.25

INCREASERS. Fig. 64

Size.....Inches	2 to 3	2 to 4	3 to 4	4 to 5	4 to 6	5 to 6	8
Medium.....Each	.85	1.10	1.10	1.45	1.75	1.75	
Extra Heavy.....Each	1.00	1.25	1.25	1.75	2.25	2.25	5.00
Long Increasers or Swedges.....				6.00			
Long Increasers with Hub.....					7.00		
Long Increasers, tapped on side..					8.00		

All fittings with Double Hubs, add 30 cents to list.
All fittings with Inlets, Hand Holes and Hub Vents, add \$1.00 to list.

CAST IRON SOIL PIPE AND FITTINGS

INVERTED Y BRANCHES. Fig. 65

Size.....Inches	2 x 2	3 x 2	4 x 2 4 x 3	5 x 2 5 x 4	6 x 4	8
Medium.....Each	1.25	1.75	2.25	3.00	3.90	
Extra Heavy.....Each	1.50	2.00	2.50	3.50	4.50	9.00

VENTILATING CAPS. Fig. 67

Size.....Inches	2	3	4	5	6
Medium.....Each	.70	.90	1.50	3.20	4.40
Extra Heavy.....Each	.80	1.00	1.75	3.75	5.25
Patent.....Each			.75		
Handy.....Each			.75		

VENT BRANCHES. Fig. 101

Size.....Inches	2	3	4	5	6	8
Medium.....Each	1.25	1.75	2.25	3.00	3.90	
Extra Heavy.....Each	1.50	2.00	2.50	3.50	4.50	9.00

PIPE RESTS. Fig. 115

Size.....Inches	2	3	4	5	6
Medium.....Each	.45	.65	.80	1.10	1.40
Extra Heavy.....Each	.50	.65	.85	1.25	1.50

PIPE BANDS. Fig. 121

Size.....Inches	4" Plain	4 x 2	5" Plain	5" Out	6" Plain	6" Out
Medium.....Each	1.75	2.45	2.45	3.35	3.35	4.30
Extra Heavy.....Each	2.25	3.00	3.00	4.10	4.10	5.25

BARRETT CLEANOUTS. Fig. 105

Size.....Inches	2	3	4	5	6
Extra Heavy.....Each	4.00	4.50	5.00	8.00	10.00

Fig. 130. Cleanout Screws, 2 to 6 inch. Prices on application.

Fig. 131. Stack Fittings or Base Ends, 4 inch.....\$4.00

All fittings with Double Hubs, add 30 cents to list.

All fittings with Inlets, Hand Holes and Hub Vents, add \$1.00 to list.

CAST IRON SOIL PIPE AND FITTINGS

OFFSETS. Fig. 60

Size.....Inches	2 x 2	2 x 4	2 x 6	2 x 8	2 x 10	2 x 12	3 x 4	3 x 6	3 x 8
Medium.....Each	.95	1.10	1.25	1.40	1.60	1.75	1.60	1.75	1.95
Extra Heavy.....Each	1.15	1.35	1.50	1.65	1.80	1.95	1.85	2.00	2.25
Size.....Inches	3 x 10	3 x 12	4 x 4	4 x 6	4 x 8	4 x 10	4 x 12	4 x 14	4 x 16
Medium.....Each	2.20	2.40	1.80	2.05	2.35	2.60	2.95	3.80	4.20
Extra Heavy.....Each	2.50	2.70	2.10	2.40	2.70	3.00	3.40	4.45	4.85
Size.....Inches	4 x 18	4 x 20	4 x 22	4 x 24	5 x 4	5 x 6	5 x 8	5 x 10	5 x 12
Medium.....Each	4.80	5.45	6.35	7.00	3.95	4.40	4.85	5.30	5.75
Extra Heavy.....Each	5.65	6.50	7.85	8.75	4.50	5.00	5.50	6.00	6.50
Size.....Inches	5 x 14	5 x 16	6 x 4	6 x 6	6 x 8	6 x 10	6 x 12	6 x 14	6 x 16
Medium.....Each	6.25	6.75	5.00	5.50	6.00	6.50	7.00	7.75	8.90
Extra Heavy.....Each	7.00	7.50	6.00	6.50	7.00	7.50	8.00	9.00	10.25

PIPE STOPPERS OR PLUGS. Fig. 62

Size.....Inches	2	3	4	5	6	8
Medium.....Each	.20	.30	.40	.60	.75	
Extra Heavy.....Each	.25	.35	.50	.75	1.00	1.50

SLEEVES AND THIMBLES—SINGLE AND DOUBLE HUBS. Figs. 123, 124, 125.

Size.....Inches	2	3	4	5	6	8
Medium.....Each	.45	.70	.85	1.20	1.45	
Extra Heavy.....Each	.50	.80	.95	1.35	1.60	3.50

Thimbles with Covers, 60 cents extra.

S. P. 3-4S AND RUNNING TRAPS. Figs 71, 89, 92

Size.....Inches	2	3	4	5	6	8
Medium.....Each	1.15	1.90	2.50	4.25	6.00	
Extra Heavy.....Each	1.35	2.25	3.00	4.75	7.00	13.00

- Fig. 99. Running Traps with Double Vent, Medium, 4 inch.....\$5.50
- Fig. 99. Running Traps with Double Vent, Extra Heavy, 4 inch.....6.00
- Fig. 100. Y Branch Running Traps, Medium, 4 inch.....5.50
- Fig. 100. Y Branch Running Traps, Extra Heavy, 4 inch.....6.00

All Fittings with Double Hubs, add 30 cents to list.
All Fittings with Inlets, Hand Holes and Hub Vents, add \$1.00 to list.

CAST IRON SOIL PIPE AND FITTINGS

TAPPED T's AND TY's. Figs. 102, 127, 133,

Size..... Inches	2x1¼, 1½, 2	3x1¼, 1½, 2	4x1¼, 1½, 2	4x18x1¼, 1½, 2	4x24x1¼, 1½, 2
Medium Each	1.60	2.00	2.60	5.00	5.75
Extra Heavy... Each	1.75	2.20	2.95		

TAPPED CROSSES. Fig. 103

Size..... Inches	2	3	4
Medium Each	2.70	3.20	3.90
Extra Heavy... Each	3.00	3.55	4.40

Fig. 122. Tapped Increasers, Medium, 4 x 1¼, 1½, 2.....	\$1.85
Fig. 122. Tapped Increasers, Extra Heavy, 4 x 1¼, 1½, 2.....	2.00
Fig. 126. Tapped Roof Fittings, 3 x 1¼, 1½, 2.....	2.00
Fig. 127. Tapped Roof Tees, 3"—Tapped to size, Side and Spigot End.....	3.20
Fig. 132. Roof Terminal with Caulking Ring, Medium, 4 x 6.....	3.50

All Fittings with Double Hubs, add 30 cents to list.

All Fittings with Inlets, Hand Holes and Hub Vents, add \$1.00 to list.

CAST IRON SCREWED FITTINGS

125 Pounds Working Pressure



Fig. 139 Straight



Fig. 140 Reducing

ELBOWS
Straight and Reducing

Size.....Inches	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Fig. 139—R. H.....Each	.05	.05	.06	.08	.10 1/2	.16	.20	.28	.50	.75
Fig. 139—R. and L...Each	.06	.06	.07	.09	.12	.18	.23	.32	.60	.85
Fig. 140—Red.....Each			.07	.09	.12	.18	.23	.32	.60	.85
Size.....Inches	3 1/2	4	4 1/2	5	6	7	8	9	10	12
Fig. 139—R. H.....Each	1.05	1.20	1.75	2.00	2.75	4.70	6.75	9.00	13.50	20.00
Fig. 140—Red... ..Each	1.20	1.40	2.00	2.30	3.15	5.40	7.75	10.50	15.50	23.00

ELBOWS 45°



Fig. 147

Size.....Inches	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Fig. 147.....Each	.06	.06	.07	.10	.12	.19	.24	.34	.60	.90
Size.....Inches	3 1/2	4	4 1/2	5	6	7	8	9	10	12
Fig. 147.....Each	1.25	1.45	2.20	2.50	3.45	5.90	8.50	11.25	17.00	25.00

PITCHED ELBOWS—Not Illustrated

Tapped to pitch 1/4 inch in 1 foot

Size.....Inches	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Price.....Each	.10	.13	.20	.25	.35	.65	1.00	1.30	1.50

Galvanized Fittings at double, above lists.
List of Standard Reducing Elbows, Page 36.
Dimensions of Fittings, Page 37.

CAST IRON SCREWED FITTINGS

125 Pounds Working Pressure



Fig. 148. Straight

TEES Straight and Reducing



Fig. 149. Reducing

Size	Inches	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3
Fig. 148	Each	.06	.08	.09	.12	.15	.23	.29	.41	.73
Fig. 149—Red.	Each			.10	.14	.17	.27	.33	.47	.83
Size	Inches	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	5	6	7	8	9	10
Fig. 148	Each	1.50	1.75	2.55	3.00	4.00	6.80	9.75	13.00	19.50
Fig. 149—Red.	Each	1.75	2.00	2.95	3.50	4.60	7.80	11.25	15.00	22.50

The Largest Opening of Reducing Fittings Determines the list price.

For List of Standard Reducing Sizes, see Page 33.

When ordering R. and L. Tees state which Opening is to be Tapped Left Hand.

R. and L. Tees made to order at a special price.

Galvanized Fittings at double above list.



Fig. 150

TEES ECCENTRIC

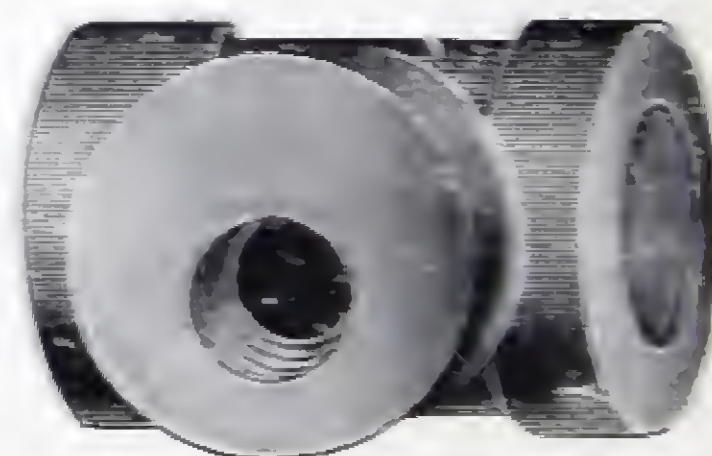


Fig. 150A

These Fittings are designed to prevent the accumulation of water from condensation.

Always accompany order with a sketch showing position of Eccentric Outlet.

Prices on application.

Dimensions of Fittings, Page 37.

CAST IRON SCREWED FITTINGS

125 Pounds Working Pressure



Fig. 153. Straight

CROSSES
Straight and Reducing



Fig. 154. Reducing

Size.....Inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Fig. 153.....Each	.16	.22	.27	.42	.53	.75	1.30	2.00	2.70	3.15
Fig. 154—Red...Each	.18	.25	.30	.46	.60	.83	1.45	2.20	3.00	3.50
Size.....Inches	4 1/2	5	6	7	8	9	10	12		
Fig. 153.....Each	4.60	5.50	7.25	12.25	17.50	23.50	35.00	52.50		
Fig. 154—Red...Each	5.10	6.00	8.00	13.50	19.25	26.00	38.50	58.00		



Fig. 155. Reducing

REDUCING COUPLINGS

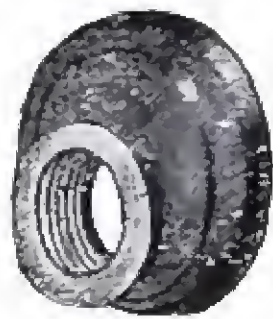


Fig. 155A. Eccentric

Size.....Inches	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	6	7	8	9	10	12
Fig. 155—Red...Each								1.85	2.00	2.70	5.35	6.75	8.35	10.00	15.00
Fig. 155A—Ecc.Each	.55	.72	1.00	1.50	2.40	3.00	4.00	5.00	6.00	8.00	9.00	11.00			

Galvanized Fittings at double above lists.
For List of Standard Sizes see Page 35.
Dimensions of Fittings, Page 37.

CAST IRON SCREWED FITTINGS

125 Pounds Working Pressure



Fig. 160. Square Head

PLUGS



Fig. 161. Countersunk

Size.....Inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Fig. 160—R. H.....Each	.02	.02	.02	.02	.03	.04	.05	.07	.10	.18	.25
Fig. 160—L. H.....Each				.04	.06	.08	.09	.11	.15		
Fig. 161—Countersunk.....Each				.04	.06	.08	.09	.11	.15	.30	.40
Solid Plugs.....Each	.02	.02	.02	.04	.06	.08	.09	.11	.15	.27	.38
Plugs tapped for Air Cock Each					.12	.15	.20	.25	.30		
Size.....Inches	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	7	8	9	10	12	
Fig. 160...R. H.....Each	.38	.42	.65	.88	1.20	1.85	2.75	3.25	3.75	5.00	
Fig. 161...Countersunk.....Each	.92	1.10		2.00	3.50						
Solid Plugs.....Each	.57	.63	1.00	1.35	1.80						

CAPS



Fig. 172

Size.....Inches	4	$4\frac{1}{2}$	5	6	7	8	9	10	12
Fig. 172.....Each	.87	1.05	1.20	1.55	2.50	2.85	4.75	5.50	7.00

LOCKNUTS



Fig. 173

Size.....Inches	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	7	8	9	10	12
Fig. 173.....Each	.27	.34	.47	.64	.85	.90	1.30	1.70	2.35	2.70	3.00	4.00

Galvanized Fittings at double above lists.

CAST IRON SCREWED FITTINGS

125 Pounds Working Pressure



Fig. 174. Eccentric



Fig. 175. Standard

BUSHINGS

Size.....Inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$
Fig. 175.....Each	.04	.04	.05	.06	.07	.09	.14	.21	.30	.40
Fig. 174—Eccentric...Each					.22	.25	.27	.42	.60	
Size.....Inches	4	$4\frac{1}{2}$	5	6	7	8	9	10	12	
Fig. 175.....Each	.50	.75	.93	1.25	1.87	2.75	3.25	3.75	5.00	
Fig. 174—Eccentric..Each	1.00		1.85	2.50						

Bushings Reducing one size only, up to and including $2\frac{1}{2}$ inches are Malleable and are listed among Malleable Fittings. The list price of Bushings is determined by the Male Thread size. Special prices on Eccentric Galvanized Bushings.

For list of Standard Bushings, see Page 36.

FLOOR FLANGES



Fig. 176

Size.....Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Fig. 176.....Each	.14	.14	.15	.18	.22	.30	.36	.45	.85	1.00
Diam. of Flange..... Inches	$2\frac{1}{8}$	$2\frac{7}{8}$	$2\frac{1}{2}$	$3\frac{3}{8}$	$3\frac{7}{8}$	$4\frac{1}{4}$	$4\frac{7}{8}$	5	$6\frac{7}{8}$	7

Galvanized Fittings at double above lists.

CAST IRON SCREWED FITTINGS

125 Pounds Working Pressure

RETURN BENDS



Fig. 177

CLOSE PATTERN. Fig. 177

Size.....Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	4
Centre to Centre.....Inches	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	$2\frac{1}{4}$	$2\frac{1}{2}$	$3\frac{1}{4}$	$3\frac{3}{4}$	$4\frac{1}{4}$	6
R. H.....Each	.18	.20	.22	.28	.40	.57	1.20	1.70	5.00
R. and L. or L. H.....Each	.21	.23	.26	.33	.46	.66	1.40	1.95	5.25



Fig. 178

OPEN PATTERN. Fig. 178

Size.....Inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	4	
Centre to Centre.....Inches	$1\frac{7}{8}$	$2\frac{3}{8}$	3	$3\frac{1}{2}$	$4\frac{1}{2}$	$5\frac{1}{2}$	$6\frac{1}{2}$	$7\frac{1}{2}$	
R. H.....Each	.26	.30	.40	.55	.80	1.35	2.20	6.50	
R. and L. or L. H.....Each	.30	.35	.46	.64	.92	1.55	2.50		

Galvanized Fittings at double above lists.

CAST IRON SCREWED FITTINGS
125 Pounds Working Pressure
RETURN BENDS
Wide Pattern



Fig. 179

Size.....Inches	1	1	1	1	1	1¼	1¼	1¼
Centre to Centre.....Inches	3	4	5	6	8	4	6	8
Fig. 179—Black.....Each	.45	.50	.60	.75	1.00	1.00	1.25	2.50
Fig. 179—Galv.....Each	.80	.90	1.10	1.30	1.60	1.75	2.00	4.00
Size.....Inches	1½	1½	1½	2	2	2	2	4
Centre to Centre.....Inches	4⅞	6	8	4⅞	6	7	8	11
Fig. 179—Black.....Each	1.30	1.60	2.00	1.75	2.00	3.00	3.50	7.50
Fig. 179—Galv.....Each	2.30	2.60	3.25	3.00	3.25	4.50	5.00	11.00



Fig. 180

BACK OUTLET—CLOSE PATTERN

Size.....Inches	¾	1	1¼	1½	2	2½	3
Centre to Centre.....Inches	1⅞	2¼	2¼	2½	3¼	3¾	4¼
Fig. 180—R. H.....Each	.38	.42	.60	.80	1.15	2.00	3.00
Fig. 180—R. and L.....Each	.42	.48	.70	.95	1.30	2.30	3.50

SIDE OUTLET—CLOSE PATTERN

Size.....Inches	¾	1	1¼	1½	2	2½	3
Centre to Centre.....Inches	1⅞	2¼	2¼	2½	3¼	3¾	4¼
R. H.....Each	.42	.48	.65	.90	1.40	2.25	3.50
R. and L.....Each	.46	.54	.75	1.05	1.55	2.55	4.00

The Back or Side Outlet Return Bend is always Tapped R. H. Open Return Bends, Back or Side Outlet are furnished at the same price as the corresponding sizes of Close Pattern.
Galvanized Fittings at double above lists.

CAST IRON SCREWED FITTINGS

Y's

125 Pounds Working Pressure

OFFSETS



Fig. 181



Fig. 182

Fig. 181 Y's.

Size	Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$
Fig. 181—Straight	Each	.20	.28	.34	.54	.66	.94	1.66	2.50	3.50
Fig. 181—Reducing	Each	.23	.33	.40	.62	.76	1.08	1.90	2.90	4.00
Size	Inches	4	$4\frac{1}{2}$	5	6	7	8	9	10	12
Fig. 181—Straight	Each	4.00	5.90	7.00	9.20	15.60	22.50	33.75	45.00	67.00
Fig. 181—Reducing	Each	4.60	6.80	8.00	10.60	18.00	26.00	39.00	51.75	77.00

Fig. 182. OFFSETS

Size	Inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6
Fig. 182 to Offset 4 in.	Each	.45	.70	1.00	1.20	1.80	3.00	4.00	5.00	6.00	7.00	8.00	10.00
Fig. 182 to Offset 6 in.	Each	.67	1.05	1.50	1.80	2.70	4.50	6.00	7.50	9.00	10.50	12.00	15.00
Fig. 182 to Offset 8 in.	Each	.90	1.40	2.00	2.40	3.60	6.00	8.00	10.00	12.00	14.00	16.00	20.00

O. S. DISTRIBUTORS

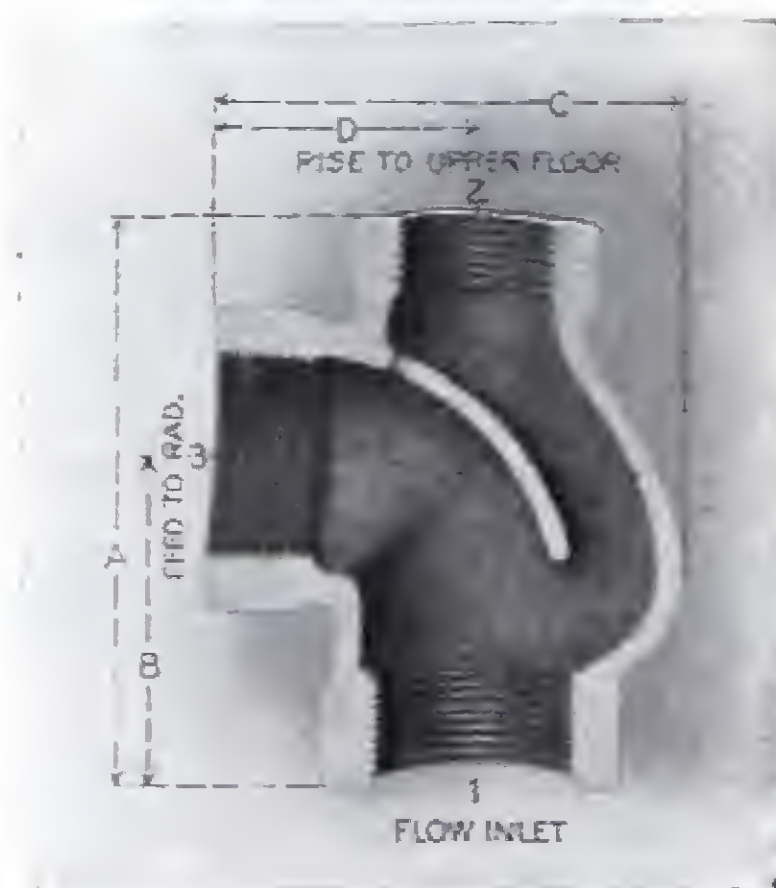


Fig. 183

The O. S. Distributor is used to equalize and positively distribute the water to the radiating surfaces where the same riser supplies Radiators on two or more floors. By its use Risers are kept in line and the pipe work is simplified, it replacing a Tee, two Elbows, two 45° Elbows and four nipples.

PRICES ON APPLICATION

CAST IRON FITTINGS

FLANGE UNIONS

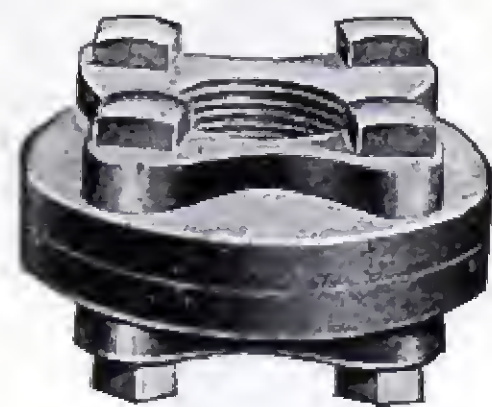


Fig. 184

STANDARD FLANGE UNION—125 Pounds Working Pressure

Size.....Inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2
Diam. of Flange.....Inches	3	3 5/16	3 5/8	4 1/8	4 5/8	5 1/8	5 3/4	6 5/8	7 1/4
Number of Bolts.....	3	3	3	4	4	4	4	4	4
Size of Bolts.....Inches	3/8x1 1/4	7/16x1 1/2	7/16x1 5/8	1/2x1 3/4	1/2x1 3/4	1/2x2	1/2x2 1/4	5/8x2 3/4	5/8x2 3/4
List Price.....Each	.40	.46	.52	.64	.78	1.00	1.25	1.50	1.80
Size.....Inches	4	4 1/2	5	6	7	8	9	10	12
Diam. of Flange.....Inches	7 7/8	8 5/8	9 1/4	10 3/8	11 3/4	13 1/4	14 1/4	16	18
Number of Bolts.....	5	5	5	6	7	8	9	10	12
Size of Bolts.....Inches	5/8x3	5/8x3 1/4	5/8x3 1/4	5/8x3 1/4	5/8x3 1/4	5/8x3 1/4	5/8x3 1/4	5/8x4	
List Price.....Each	2.10	2.70	3.15	3.95	5.50	7.00	10.00	11.50	16.00

EXTRA HEAVY FLANGE UNION—250 Pounds Working Pressure

Size.....Inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2
Diam. of Flange.....Inches	3	3 1/2	3 5/8	4 1/8	4 5/8	5 1/2	6	7 1/8	7 1/2
Number of Bolts.....	3	4	4	4	4	5	5	6	6
List Price.....Each	.70	.70	.80	1.00	1.15	1.50	1.90	2.25	2.70
Size.....Inches	4	4 1/2	5	6	7	8	9	10	12
Diam. of Flange.....Inches	8	8 3/4	9 3/8	10 7/8	12	13 1/4	14 3/8	15 3/4	18
Number of Bolts.....	7	8	8	9	10	10	12	12	14
List Price.....Each	3.15	4.00	4.75	6.00	8.25	10.50	15.00	17.25	24.00

Galvanized Fittings at double above lists.

CAST IRON FITTINGS

BRANCH TEES

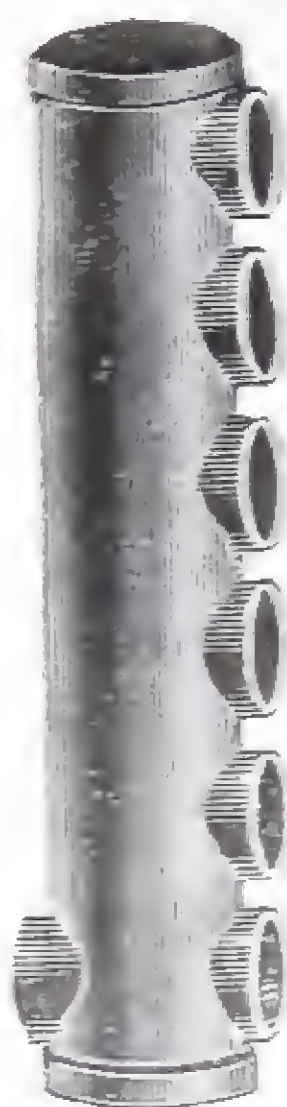


Fig. 185
Back Feed
at End

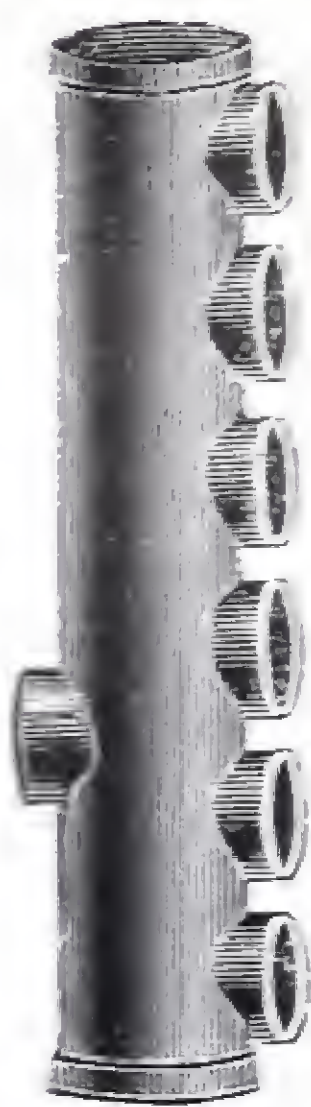


Fig. 186
Back Feed



Fig. 187
End Feed



Fig. 188
Back Feed
in centre

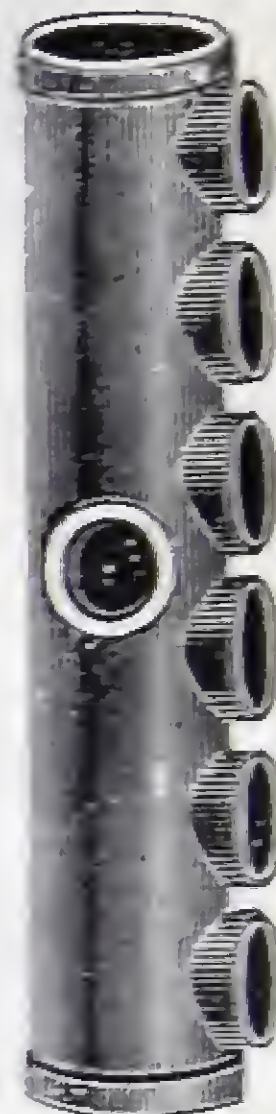


Fig. 189
Side Feed
in centre

1-INCH BRANCH TEES—2 $\frac{1}{2}$ -INCH CENTRE TO CENTRE. Fig. 187

Number of Branches		2	3	4	5	6	7	8	9	10	12
1-Inch or 1 $\frac{1}{2}$ -Inch Run	Each	90	1.05	1.15	1.35	1.60	1.90	2.20	2.65	3.15	4.40
1 $\frac{1}{2}$ -Inch Run	Each	1.00	1.15	1.30	1.45	1.75	2.20	2.45	2.90	3.30	4.75
2-Inch Run	Each	1.15	1.35	1.60	1.85	2.10	2.45	2.75	3.40	4.00	5.10

1 $\frac{1}{2}$ -INCH BRANCH TEES—3-INCH CENTRE TO CENTRE. Fig. 187.

Number of Branches		2	3	4	5	6	7	8	9	10	12
1 $\frac{1}{2}$ -Inch or 1 $\frac{1}{2}$ -Inch Run	Each	1.30	1.65	2.00	2.40	2.80	3.20	3.60	4.30	4.80	5.25
2-Inch Run	Each	1.50	1.90	2.40	2.90	3.30	3.90	4.50	5.25	5.85	6.50
2 $\frac{1}{2}$ -Inch Run	Each	1.95	2.40	2.85	3.55	3.95	4.20	4.95	6.15	6.85	7.65

1 $\frac{1}{2}$ -INCH BRANCH TEES—3 $\frac{1}{2}$ -INCH CENTRE TO CENTRE. Fig. 187

Number of Branches		2	3	4	5	6	7	8	9	10	12
1 $\frac{1}{2}$ -Inch or 2-Inch Run	Each	2.10	2.70	3.35	4.00	4.65	5.25	5.85	6.50	7.60	8.50
2 $\frac{1}{2}$ -Inch Run	Each	2.85	3.45	4.15	5.00	5.75	6.50	7.00	8.25	9.25	10.50

2-INCH BRANCH TEES—4 $\frac{1}{2}$ -INCH CENTRE TO CENTRE. Fig. 187

Number of Branches		2	3	4	5	6	7	8	9	10	12
2-Inch Run	Each	4.10	5.25	6.40	7.65	8.80	10.60	11.50	12.25	13.50	15.00
2 $\frac{1}{2}$ -Inch or 3-Inch Run	Each	4.50	5.75	7.00	8.50	9.75	11.75	12.75	13.50	15.00	16.50

Branch Tees with Back or Side Outlet, use next higher list.
All Openings are Tapped R. H. unless otherwise ordered.

CAST IRON FITTINGS
CLUSTER HEADERS



Fig. 190. End Feed

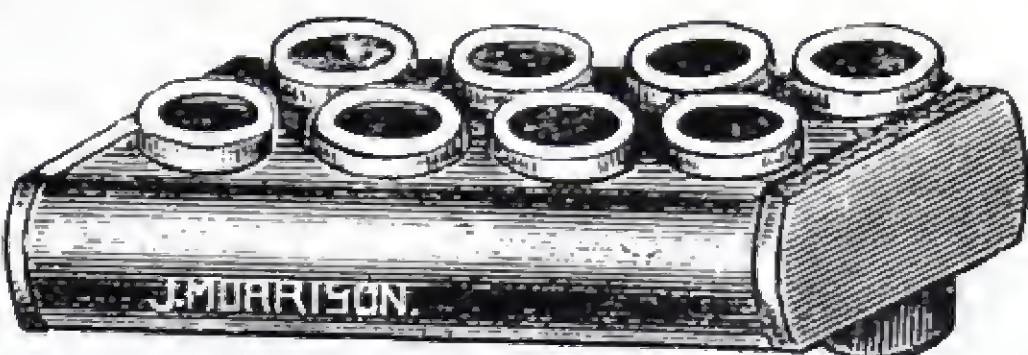


Fig. 191. Back Feed

Number of Branches For 1-in. Pipe	2 x 2	2 x 3	2 x 4	2 x 5	2 x 6	2 x 7	2 x 8	2 x 9	2 x 10	2 x 12
Fig. 190.....Each	1.00	1.50	2.00	2.40	2.80	3.20	3.60	4.00	4.40	5.60
Fig. 191.....Each	1.00	1.50	2.00	2.40	2.80	3.20	3.60	4.00	4.40	5.60
With division in centre. Ea.					3.35		4.30		5.25	6.75

In ordering state whether tapped Right or Left Hand.

LARGE MANIFOLDS OR BRANCH TEES
3-INCH RUN

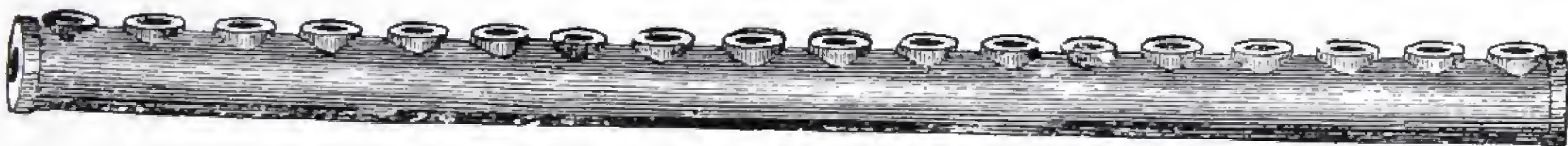


Fig. 192

Number of Branches For 1-in. Pipe		3	4	5	6	7	8	9	10	11
2½ in. Centre to Centre	Length, inches..	8¼	10¾	13¼	15¾	18¼	20¾	23¼	25¾	28¼
	Each.....	3.00	3.60	4.20	4.85	5.50	6.20	7.30	8.40	9.00
3 in. Centre to Centre	Length, inches..	9¼	12¼	15¼	18¼	21¼	24¼	27¼	30¼	33¼
	Each.....	3.25	4.00	4.75	5.50	6.25	7.10	8.25	9.20	10.00
3½ in. Centre to Centre	Length, inches..	10¼	13¾	17¼	20¾	24¼	27¾	31¼	34¾	38¼
	Each.....	3.50	4.25	5.00	6.00	7.50	8.75	9.75	10.75	11.75
4 in. Centre to Centre	Length, inches..	11¼	15¼	19¼	23¼	27¼	31¼	35¼	39¼	43¼
	Each.....	3.60	4.75	5.50	7.50	8.75	10.00	11.25	12.50	15.0

LARGE MANIFOLDS—Continued

Number of Branches For 1-in. Pipe		12	13	14	15	16	18	20	22	24
2½ in. Centre to Centre	Length, inches..	30¾	33¼	35¾	38¼	40¾	45¾	50¾	55¾	60¾
	Each.....	9.70	10.35	11.00	11.75	12.50	15.75	17.00	18.50	21.00
3 in. Centre to Centre	Length, inches..	36¼	39¼	42¼	45¼	48¼	54¼	60¼		
	Each.....	11.25	12.25	13.50	14.75	16.00	18.50	21.00		
3½ in. Centre to Centre	Length, inches..	41¾	45¼	48¾	52¼	55¾	62¾			
	Each.....	13.00	14.75	16.50	18.25	20.00	21.75			
4 in. Centre to Centre	Length, inches..	47¼	51¼	55¼	59¼					
	Each.....	16.25	17.50	18.75	20.00					

CAST IRON FITTINGS

LARGE MANIFOLDS, OR BRANCH TEES

3-INCH RUN

FLANGED ENDS

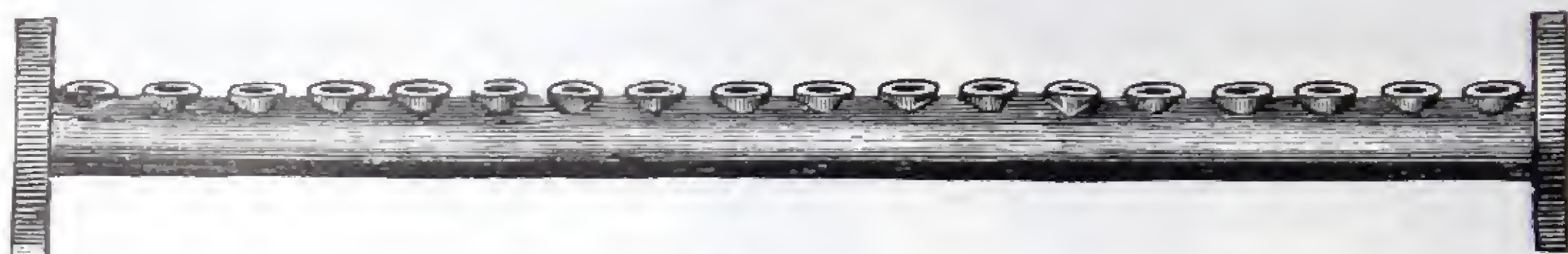


Fig. 193

Number of Branches for 1-in. Pipe		10	12	14	16	18	20	22
3 in. Centre to Centre	Length, ft. and in.....						5.0 $\frac{1}{4}$	5.6 $\frac{1}{4}$
	Price.....Each						24.25	25.75
3 $\frac{1}{2}$ in. Centre to Centre	Length, ft. and in.....				4.9	5.4	5.11	6.6
	Price.....Each				23.25	24.75	26.25	28.00
4 in. Centre to Centre	Length, ft. and in.....				5.4	6.0	6.8	7.4
	Price.....Each				24.25	26.00	27.75	29.50
5 in. Centre to Centre	Length, ft. and in.....		5.0	5.10	6.8	7.6	8.4	9.2
	Price.....Each		23.00	25.00	27.25	29.50	31.75	34.00
6 in. Centre to Centre	Length, ft. and in.....	5.0	6.0	7.0	8.0	9.0	10.0	
	Price.....Each	22.75	25.25	27.75	30.25	32.75	35.50	

Number of Branches for 1-in. Pipe.....		24	26	28	30	32	34	36
2 $\frac{1}{2}$ in. Centre to Centre	Length, ft. and in.....	5.0 $\frac{3}{4}$	5.5 $\frac{3}{4}$	5.10 $\frac{3}{4}$	6.3 $\frac{3}{4}$	6.8 $\frac{3}{4}$	7.1 $\frac{3}{4}$	7.6 $\frac{3}{4}$
	Price.....Each	24.50	25.75	27.00	28.25	29.50	30.75	32.25
3 in. Centre to Centre	Length, ft. and in.....	6.0 $\frac{1}{4}$	6.6 $\frac{1}{4}$	7.0 $\frac{1}{4}$	7.6 $\frac{1}{4}$	8.0 $\frac{1}{4}$	8.6 $\frac{1}{4}$	9.0 $\frac{1}{4}$
	Price.....Each	27.25	28.75	30.25	31.75	33.50	35.25	37.00
3 $\frac{1}{2}$ in. Centre to Centre	Length, ft. and in.....	7.1	7.8	8.3	8.10	9.5	10.0	
	Price.....Each	29.75	31.50	33.25	35.00	37.00	39.00	
4 in. Centre to Centre	Length, ft. and in.....	8.0	8.8	9.4	10.0			
	Price.....Each	31.50	33.50	35.50	37.50			
5 in. Centre to Centre	Length, ft. and in.....	10.0						
	Price.....Each	36.50						

Number of Branches for 1-in. Pipe.....		38	40	42	44	46	48	
2 $\frac{1}{2}$ in. Centre to Centre	Length, ft. and in.....	7.11 $\frac{3}{4}$	8.4 $\frac{3}{4}$	8.9 $\frac{3}{4}$	9.2 $\frac{3}{4}$	9.7 $\frac{3}{4}$	10.0 $\frac{3}{4}$	
	Price.....Each	33.75	35.25	36.75	38.25	39.75	41.25	
3 in. Centre to Centre	Length, ft. and in.....	9.6 $\frac{1}{4}$	10.0 $\frac{1}{4}$					
	Price.....Each	38.75	40.50					

LIST OF SIZES OF STANDARD CAST IRON FITTINGS

TEES—REDUCING SIZES

In describing tees, the run is first named, then the outlet, thus:

$$\begin{array}{c} \frac{3}{4} \\ | \\ \frac{1}{2} \text{---} \text{---} \frac{3}{8} \end{array} = \frac{1}{2} \times \frac{3}{8} \times \frac{3}{4}$$

$\frac{3}{8} \times \frac{3}{8} \times \frac{1}{4}$	$1\frac{1}{4} \times 1\frac{1}{4} \times \frac{1}{2}$	$1\frac{1}{2} \times \frac{3}{4} \times 1$	$2 \times 1 \times 1$	$2\frac{1}{2} \times 1\frac{1}{2} \times 1\frac{1}{4}$
$\frac{1}{2} \times \frac{1}{2} \times \frac{3}{8}$	$1\frac{1}{4} \times 1\frac{1}{4} \times \frac{3}{8}$	$1\frac{1}{2} \times \frac{3}{4} \times \frac{3}{4}$	$2 \times 1 \times \frac{3}{4}$	$2\frac{1}{2} \times 1\frac{1}{2} \times 1$
$\frac{1}{2} \times \frac{1}{2} \times \frac{1}{4}$	$1\frac{1}{4} \times 1\frac{1}{4} \times \frac{1}{4}$	$1\frac{1}{2} \times \frac{1}{2} \times 1\frac{1}{2}$	$2 \times \frac{3}{4} \times 2$	$2\frac{1}{2} \times 1\frac{1}{4} \times 2\frac{1}{2}$
$\frac{1}{2} \times \frac{3}{8} \times \frac{1}{2}$	$1\frac{1}{4} \times 1 \times 1\frac{1}{4}$	$1\frac{1}{2} \times \frac{1}{2} \times 1\frac{1}{4}$	$2 \times \frac{3}{4} \times 1\frac{1}{2}$	$2\frac{1}{2} \times 1\frac{1}{4} \times 2$
$\frac{1}{2} \times \frac{3}{8} \times \frac{3}{8}$	$1\frac{1}{4} \times 1 \times 1$	$1\frac{1}{2} \times \frac{3}{8} \times 1\frac{1}{2}$	$2 \times \frac{1}{2} \times 1\frac{1}{2}$	$2\frac{1}{2} \times 1\frac{1}{4} \times 1\frac{1}{2}$
$\frac{3}{8} \times \frac{3}{8} \times \frac{1}{2}$	$1\frac{1}{4} \times 1 \times \frac{3}{4}$	$1\frac{1}{4} \times 1\frac{1}{4} \times 1\frac{1}{2}$	$2 \times \frac{1}{4} \times 2$	$2\frac{1}{2} \times 1 \times 2\frac{1}{2}$
$\frac{3}{4} \times \frac{3}{4} \times \frac{1}{2}$	$1\frac{1}{4} \times 1 \times \frac{1}{2}$	$1\frac{1}{4} \times 1 \times 1\frac{1}{2}$	$2 \times \frac{1}{2} \times 2$	$2\frac{1}{2} \times 1 \times 2$
$\frac{3}{4} \times \frac{3}{4} \times \frac{3}{8}$	$1\frac{1}{4} \times \frac{3}{4} \times 1\frac{1}{4}$	$1\frac{1}{4} \times \frac{3}{4} \times 1\frac{1}{2}$	$1\frac{1}{2} \times 1\frac{1}{2} \times 2$	$2\frac{1}{2} \times \frac{3}{4} \times 2\frac{1}{2}$
$\frac{3}{4} \times \frac{3}{4} \times \frac{1}{4}$	$1\frac{1}{4} \times \frac{3}{4} \times 1$	$1\frac{1}{4} \times \frac{1}{2} \times 1\frac{1}{2}$	$1\frac{1}{2} \times 1\frac{1}{4} \times 2$	$2\frac{1}{2} \times \frac{1}{2} \times 2\frac{1}{2}$
$\frac{3}{4} \times \frac{1}{2} \times \frac{3}{4}$	$1\frac{1}{4} \times \frac{3}{4} \times \frac{3}{4}$	$1 \times 1 \times 1\frac{1}{2}$	$1\frac{1}{2} \times 1 \times 2$	$2 \times 2 \times 2\frac{1}{2}$
$\frac{3}{4} \times \frac{1}{2} \times \frac{1}{2}$	$1\frac{1}{4} \times \frac{1}{2} \times 1\frac{1}{4}$	$1 \times \frac{3}{4} \times 1\frac{1}{2}$	$1\frac{1}{2} \times \frac{3}{4} \times 2$	$2 \times 1\frac{1}{2} \times 2\frac{1}{2}$
$\frac{3}{4} \times \frac{3}{8} \times \frac{3}{4}$	$1\frac{1}{4} \times \frac{1}{4} \times 1\frac{1}{4}$	$\frac{3}{4} \times \frac{3}{4} \times 1\frac{1}{2}$	$1\frac{1}{4} \times 1\frac{1}{4} \times 2$	$2 \times 1\frac{1}{4} \times 2\frac{1}{2}$
$\frac{3}{4} \times \frac{3}{8} \times \frac{3}{8}$	$1\frac{1}{4} \times \frac{1}{2} \times 1$	$2 \times 2 \times 1\frac{1}{2}$	$1\frac{1}{4} \times 1 \times 2$	$2 \times 1 \times 2\frac{1}{2}$
$\frac{3}{4} \times \frac{1}{4} \times \frac{3}{4}$	$1 \times 1 \times 1\frac{1}{4}$	$2 \times 2 \times 1\frac{1}{4}$	$1\frac{1}{4} \times \frac{3}{4} \times 2$	$2 \times \frac{3}{4} \times 2\frac{1}{2}$
$\frac{1}{2} \times \frac{1}{2} \times \frac{3}{4}$	$1 \times \frac{3}{4} \times 1\frac{1}{4}$	$2 \times 2 \times 1$	$1 \times 1 \times 2$	$1\frac{1}{2} \times 1\frac{1}{2} \times 2\frac{1}{2}$
$1 \times 1 \times \frac{3}{4}$	$\frac{3}{4} \times \frac{3}{4} \times 1\frac{1}{4}$	$2 \times 2 \times \frac{3}{4}$	$1 \times \frac{3}{4} \times 2$	$1\frac{1}{2} \times 1\frac{1}{4} \times 2\frac{1}{2}$
$1 \times 1 \times \frac{1}{2}$	$1\frac{1}{2} \times 1\frac{1}{2} \times 1\frac{1}{4}$	$2 \times 2 \times \frac{1}{2}$	$\frac{3}{4} \times \frac{3}{4} \times 2$	$1\frac{1}{2} \times 1 \times 2\frac{1}{2}$
$1 \times 1 \times \frac{3}{8}$	$1\frac{1}{2} \times 1\frac{1}{2} \times 1$	$2 \times 2 \times \frac{1}{4}$	$2\frac{1}{2} \times 2\frac{1}{2} \times 2$	$3 \times 3 \times 2\frac{1}{2}$
$1 \times 1 \times \frac{1}{4}$	$1\frac{1}{2} \times 1\frac{1}{2} \times \frac{3}{4}$	$2 \times 1\frac{1}{2} \times 2$	$2\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{2}$	$3 \times 3 \times 2$
$1 \times \frac{3}{4} \times 1$	$1\frac{1}{2} \times 1\frac{1}{2} \times \frac{1}{2}$	$2 \times 1\frac{1}{2} \times 1\frac{1}{2}$	$2\frac{1}{2} \times 2\frac{1}{2} \times 1\frac{1}{4}$	$3 \times 3 \times 1\frac{1}{2}$
$1 \times \frac{3}{4} \times \frac{3}{4}$	$1\frac{1}{2} \times 1\frac{1}{4} \times 1\frac{1}{2}$	$2 \times 1\frac{1}{2} \times 1\frac{1}{4}$	$2\frac{1}{2} \times 2\frac{1}{2} \times 1$	$3 \times 3 \times 1\frac{1}{4}$
$1 \times \frac{3}{4} \times \frac{1}{2}$	$1\frac{1}{2} \times 1\frac{1}{4} \times 1\frac{1}{4}$	$2 \times 1\frac{1}{2} \times 1$	$2\frac{1}{2} \times 2\frac{1}{2} \times \frac{3}{4}$	$3 \times 3 \times 1$
$1 \times \frac{1}{2} \times 1$	$1\frac{1}{2} \times 1\frac{1}{4} \times 1$	$2 \times 1\frac{1}{2} \times \frac{3}{4}$	$2\frac{1}{2} \times 2\frac{1}{2} \times \frac{1}{2}$	$3 \times 3 \times \frac{3}{4}$
$1 \times \frac{1}{2} \times \frac{3}{4}$	$1\frac{1}{2} \times 1\frac{1}{4} \times \frac{3}{4}$	$2 \times 1\frac{1}{2} \times \frac{1}{2}$	$2\frac{1}{2} \times 2 \times 2\frac{1}{2}$	$3 \times 3 \times \frac{1}{2}$
$1 \times \frac{1}{2} \times \frac{1}{2}$	$1\frac{1}{2} \times 1\frac{1}{4} \times \frac{1}{2}$	$2 \times 1\frac{1}{4} \times 2$	$2\frac{1}{2} \times 2 \times 2$	$3 \times 2\frac{1}{2} \times 3$
$1 \times \frac{3}{8} \times 1$	$1\frac{1}{2} \times 1 \times 1\frac{1}{2}$	$2 \times 1\frac{1}{4} \times 1\frac{1}{2}$	$2\frac{1}{2} \times 2 \times 1\frac{1}{2}$	$3 \times 2\frac{1}{2} \times 2\frac{1}{2}$
$1 \times \frac{1}{4} \times 1$	$1\frac{1}{2} \times 1 \times 1\frac{1}{4}$	$2 \times 1\frac{1}{4} \times 1\frac{1}{4}$	$2\frac{1}{2} \times 2 \times 1\frac{1}{4}$	$3 \times 2\frac{1}{2} \times 2$
$\frac{3}{4} \times \frac{3}{4} \times 1$	$1\frac{1}{2} \times 1 \times 1$	$2 \times 1\frac{1}{4} \times 1$	$2\frac{1}{2} \times 2 \times 1$	$3 \times 2\frac{1}{2} \times 1\frac{1}{2}$
$\frac{3}{4} \times \frac{1}{2} \times 1$	$1\frac{1}{2} \times 1 \times \frac{3}{4}$	$2 \times 1\frac{1}{4} \times \frac{3}{4}$	$2\frac{1}{2} \times 2 \times \frac{3}{4}$	$3 \times 2\frac{1}{2} \times 1\frac{1}{4}$
$\frac{1}{2} \times \frac{1}{2} \times 1$	$1\frac{1}{2} \times 1 \times \frac{1}{2}$	$2 \times 1 \times 2$	$2\frac{1}{2} \times 2 \times \frac{1}{2}$	$3 \times 2\frac{1}{2} \times 1$
$1\frac{1}{4} \times 1\frac{1}{4} \times 1$	$1\frac{1}{2} \times \frac{3}{4} \times 1\frac{1}{2}$	$2 \times 1 \times 1\frac{1}{2}$	$2\frac{1}{2} \times 1\frac{1}{2} \times 2\frac{1}{2}$	$3 \times 2\frac{1}{2} \times \frac{3}{4}$
$1\frac{1}{4} \times 1\frac{1}{4} \times \frac{3}{4}$	$1\frac{1}{2} \times \frac{3}{4} \times 1\frac{1}{4}$	$2 \times 1 \times 1\frac{1}{4}$	$2\frac{1}{2} \times 1\frac{1}{2} \times 2$	$3 \times 2 \times 3$
			$2\frac{1}{2} \times 1\frac{1}{2} \times 1\frac{1}{2}$	$3 \times 2 \times 2\frac{1}{2}$

Sizes not listed above are special.

LIST OF SIZES OF STANDARD CAST IRON FITTINGS

TEES—REDUCING SIZES—Continued

3	x 2	x 2	4	x 4	x 1½	4½	x 4½	x 4	4	x 4	x 5	5	x 5	x 7
3	x 2	x 1½	4	x 4	x 1¼	4½	x 4½	x 3½	6	x 6	x 5	8	x 8	x 7
3	x 2	x 1¼	4	x 4	x 1	4½	x 4½	x 3	6	x 6	x 4½	8	x 8	x 6
2	x 2	x 1	4	x 4	x ¾	4½	x 4½	x 2½	6	x 6	x 4	8	x 8	x 5
3	x 1½	x 3	4	x 4	x ¾	4½	x 4½	x 2	6	x 6	x 3½	8	x 8	x 4
3	x 1½	x 2½	4	x 3½	x 4	4½	x 4½	x 1½	6	x 6	x 3	8	x 8	x 3½
3	x 1½	x 2	4	x 3½	x 3½	4½	x 4½	x 1¼	6	x 6	x 2½	8	x 8	x 3
3	x 1¼	x 3	4	x 3½	x 3	4½	x 4½	x 1	6	x 6	x 2	8	x 8	x 2½
3	x 1	x 3	4	x 3½	x 2½	4½	x 4	x 3	6	x 6	x 1½	8	x 8	x 2
2½	x 2½	x 3	4	x 3½	x 2	4½	x 4	x 2	6	x 6	x 1¼	8	x 8	x 1½
2½	x 2	x 3	4	x 3½	x 1½	5	x 5	x 4½	6	x 5	x 6	8	x 7	x 8
2½	x 1½	x 3	4	x 3½	x 1¼	5	x 5	x 4	6	x 5	x 5	8	x 7	x 6
2	x 2	x 3	4	x 3½	x 1	5	x 5	x 3½	6	x 5	x 4	8	x 7	x 5
3½	x 3½	x 3	4	x 3	x 4	5	x 5	x 3	6	x 5	x 3½	8	x 7	x 4
3½	x 3½	x 2½	4	x 3	x 3½	5	x 5	x 2½	6	x 5	x 3	8	x 7	x 3
3½	x 3½	x 2	4	x 3	x 3	5	x 5	x 2	6	x 5	x 2½	8	x 6	x 8
3½	x 3½	x 1½	4	x 3	x 2½	5	x 5	x 1½	6	x 5	x 1½	8	x 6	x 7
3½	x 3½	x 1¼	4	x 3	x 2	5	x 5	x 1¼	6	x 4	x 6	8	x 6	x 6
3½	x 3½	x 1	4	x 3	x 1½	5	x 5	x 1	6	x 4	x 4	8	x 5	x 8
3½	x 3½	x ¾	4	x 3	x 1¼	5	x 5	x ¾	6	x 4	x 3	8	x 5	x 5
3½	x 3	x 3½	4	x 3	x 1	5	x 4	x 5	6	x 3	x 6	8	x 4	x 8
3½	x 3	x 3	4	x 3	x ¾	5	x 4	x 4½	6	x 2½	x 6	8	x 4	x 6
3½	x 3	x 2½	4	x 2½	x 4	5	x 4	x 4	6	x 2	x 6	6	x 6	x 8
3½	x 3	x 2	4	x 2½	x 3½	5	x 4	x 3½	5	x 5	x 6	9	x 9	x 7
3½	x 3	x 1½	4	x 2½	x 3	5	x 4	x 3	5	x 3½	x 6	9	x 9	x 6
3½	x 3	x 1¼	4	x 2½	x 2½	5	x 4	x 2½	4	x 4	x 6	9	x 9	x 5
3½	x 3	x 1	4	x 2½	x 2	5	x 4	x 2	7	x 7	x 6	10	x 10	x 8
3½	x 3	x ¾	4	x 2½	x 1½	5	x 4	x 1½	7	x 7	x 5	10	x 10	x 6
3½	x 2½	x 3½	4	x 2½	x 1¼	5	x 3½	x 3½	7	x 7	x 4	10	x 10	x 5
3½	x 2½	x 3	4	x 2½	x 1	5	x 3	x 5	7	x 7	x 3½	10	x 10	x 4
3½	x 2½	x 2½	4	x 2	x 4	5	x 3	x 4½	7	x 7	x 3	10	x 10	x 3
3½	x 2½	x 2	4	x 2	x 3	5	x 3	x 4	7	x 7	x 2½	10	x 10	x 2
3½	x 2	x 3½	4	x 2	x 2½	5	x 3	x 3½	7	x 7	x 2	10	x 8	x 8
3½	x 1½	x 3½	4	x 2	x 2	5	x 3	x 3	7	x 6	x 7	8	x 8	x 10
3½	x 1¼	x 3½	4	x 1½	x 4	5	x 3	x 2½	7	x 6	x 6	12	x 12	x 10
3½	x 1	x 3½	4	x 1¼	x 4	5	x 3	x 2	7	x 6	x 5	12	x 12	x 8
3	x 3	x 3½	4	x 1	x 4	5	x 2½	x 5	7	x 6	x 4	12	x 12	x 6
4	x 4	x 3½	3½	x 3½	x 4	5	x 2½	x 4	7	x 6	x 3	12	x 12	x 5
4	x 4	x 3	3	x 3	x 4	5	x 2½	x 3	7	x 5	x 6	12	x 12	x 4
4	x 4	x 2½	2½	x 2½	x 4	5	x 2	x 5	7	x 5	x 5	12	x 8	x 10
4	x 4	x 2	2	x 2	x 4	5	x 1¼	x 5	6	x 6	x 7	12	x 8	x 8

Sizes not listed above are special.

LIST OF SIZES OF STANDARD CAST IRON FITTINGS

CROSSES—REDUCING SIZES



2 x 1 1/2 x 1 x 1



2 x 2 x 1 1/2 x 1 1/4



2 x 2 x 1 1/4 x 1 1/4

3/4 x 3/4 x 1/2 x 1/2	2 1/2 x 2 1/2 x 1 1/4 x 1	3 x 2 1/2 x 1 1/2 x 1 1/2	4 x 3 1/2 x 2 x 1 1/2
3/4 x 1/2 x 1/2 x 1/2	2 1/2 x 2 1/2 x 1 1/4 x 3/4	3 x 2 1/2 x 1 1/2 x 1 1/4	4 x 3 1/2 x 2 x 1 1/4
1 x 1 x 3/4 x 3/4	2 1/2 x 2 1/2 x 1 x 1	3 x 2 1/2 x 1 1/2 x 1	4 x 3 1/2 x 1 1/2 x 1 1/2
1 x 1 x 1/2 x 1/2	2 1/2 x 2 1/2 x 1 x 3/4	3 x 2 1/2 x 1 1/4 x 1 1/4	4 x 3 1/2 x 1 1/2 x 1 1/4
1 x 3/4 x 3/4 x 3/4	2 1/2 x 2 1/2 x 3/4 x 3/4	3 x 2 1/2 x 1 1/4 x 1	4 x 3 1/2 x 1 1/4 x 1 1/4
1 1/4 x 1 1/4 x 1 x 1	2 1/2 x 2 x 2 x 1 1/2	3 x 2 1/2 x 1 x 1	4 x 3 1/2 x 1 1/4 x 1
1 1/4 x 1 1/4 x 3/4 x 3/4	2 1/2 x 2 x 2 x 1 1/4	3 x 2 x 2 x 2	5 x 5 x 4 x 4
1 1/4 x 1 1/4 x 1/2 x 1/2	2 1/2 x 2 x 2 x 1	3 1/2 x 3 1/2 x 3 x 3	5 x 5 x 3 x 3
1 1/4 x 1 x 1 x 1	2 1/2 x 2 x 1 1/2 x 1 1/2	3 1/2 x 3 1/2 x 2 1/2 x 2 1/2	5 x 5 x 2 1/2 x 2 1/2
1 1/4 x 1 x 3/4 x 3/4	2 1/2 x 2 x 1 1/2 x 1 1/4	3 1/2 x 3 1/2 x 2 x 2	5 x 5 x 2 x 2
1 1/4 x 3/4 x 3/4 x 3/4	2 1/2 x 2 x 1 1/2 x 1	3 1/2 x 3 1/2 x 2 x 1 1/2	5 x 5 x 2 x 1 1/2
1 1/2 x 1 1/2 x 1 1/4 x 1 1/4	2 1/2 x 2 x 1 1/2 x 3/4	3 1/2 x 3 1/2 x 1 1/2 x 1 1/2	5 x 5 x 1 1/2 x 1 1/2
1 1/2 x 1 1/2 x 1 x 1	2 1/2 x 2 x 1 1/4 x 1 1/4	3 1/2 x 3 1/2 x 1 1/2 x 1 1/4	5 x 5 x 1 1/2 x 1 1/4
1 1/2 x 1 1/2 x 3/4 x 3/4	2 1/2 x 2 x 1 1/4 x 1	3 1/2 x 3 1/2 x 1 x 1	5 x 5 x 1 x 1
1 1/2 x 1 1/2 x 1/2 x 1/2	2 1/2 x 2 x 1 x 1	3 1/2 x 3 1/2 x 1 1/4 x 1 1/4	5 x 4 x 2 x 2
1 1/2 x 1 1/4 x 1 1/4 x 1 1/4	2 1/2 x 2 x 1 x 3/4	3 1/2 x 3 1/2 x 1 1/4 x 1	5 x 4 x 2 x 1 1/2
1 1/2 x 1 1/4 x 1 x 1	2 1/2 x 2 x 3/4 x 3/4	3 1/2 x 3 1/2 x 1 x 1	5 x 4 x 1 1/2 x 1 1/2
1 1/2 x 1 1/4 x 3/4 x 3/4	2 1/2 x 1 1/2 x 2 x 1 1/2	3 1/2 x 3 x 2 1/2 x 2	5 x 4 x 1 1/2 x 1 1/4
1 1/2 x 1 x 1 x 3/4	2 1/2 x 1 1/2 x 1 1/2 x 1	3 1/2 x 3 x 2 x 2	5 x 4 x 1 1/4 x 1
1 1/2 x 1 x 3/4 x 3/4	2 1/2 x 1 1/2 x 1 1/4 x 1 1/4	3 1/2 x 3 x 2 x 1 1/2	5 x 4 x 1 x 1
2 x 2 x 1 1/2 x 1 1/2	3 x 3 x 2 1/2 x 2 1/2	3 1/2 x 3 x 2 x 1 1/4	6 x 6 x 5 x 5
2 x 2 x 1 1/4 x 1 1/4	3 x 3 x 2 x 2	3 1/2 x 3 x 1 1/2 x 1 1/2	6 x 6 x 4 x 4
2 x 2 x 1 1/4 x 1	3 x 3 x 2 x 1 1/2	3 1/2 x 3 x 1 1/2 x 1 1/4	6 x 6 x 3 x 3
2 x 2 x 1 x 1	3 x 3 x 2 x 1	3 1/2 x 3 x 1 1/2 x 1	6 x 6 x 2 1/2 x 2 1/2
2 x 2 x 1 x 3/4	3 x 3 x 1 1/2 x 1 1/2	3 1/2 x 3 x 1 1/4 x 1 1/4	6 x 6 x 2 x 2
2 x 2 x 3/4 x 3/4	3 x 3 x 1 1/2 x 1 1/4	3 1/2 x 3 x 1 1/4 x 1	6 x 6 x 2 x 1 1/2
2 x 2 x 1/2 x 1/2	3 x 3 x 1 1/2 x 1	3 1/2 x 3 x 1 x 1	6 x 6 x 1 1/2 x 1 1/2
2 x 1 1/2 x 1 1/2 x 1 1/2	3 x 3 x 1 1/2 x 3/4	4 x 4 x 3 1/2 x 3 1/2	6 x 5 x 2 x 2
2 x 1 1/2 x 1 1/4 x 1 1/4	3 x 3 x 1 1/4 x 1 1/4	4 x 4 x 3 x 3	6 x 5 x 2 x 1 1/2
2 x 1 1/2 x 1 1/4 x 1	3 x 3 x 1 1/4 x 1	4 x 4 x 2 1/2 x 2 1/2	6 x 5 x 1 1/2 x 1 1/2
2 x 1 1/2 x 1 x 1	3 x 3 x 1 1/4 x 3/4	4 x 4 x 2 x 2	7 x 7 x 6 x 6
2 x 1 1/2 x 1 x 3/4	3 x 3 x 1 x 1	4 x 4 x 2 x 1 1/2	7 x 7 x 5 x 5
2 x 1 1/2 x 3/4 x 3/4	3 x 3 x 3/4 x 3/4	4 x 4 x 1 1/2 x 1 1/2	8 x 8 x 7 x 7
2 x 1 1/2 x 1 x 3/4	3 x 2 1/2 x 2 1/2 x 2	4 x 4 x 1 1/2 x 1 1/4	8 x 8 x 6 x 6
2 x 1 x 1 1/2 x 1	3 x 2 1/2 x 2 1/2 x 1 1/2	4 x 4 x 1 1/2 x 1	8 x 8 x 5 x 5
2 1/2 x 2 1/2 x 2 x 2	3 x 2 1/2 x 2 x 2	4 x 4 x 1 1/4 x 1 1/4	8 x 8 x 4 x 4
2 1/2 x 2 1/2 x 1 1/2 x 1 1/2	3 x 2 1/2 x 2 x 1 1/2	4 x 4 x 1 1/4 x 1	10 x 10 x 8 x 8
2 1/2 x 2 1/2 x 1 1/2 x 1 1/4	3 x 2 1/2 x 2 x 1 1/4	4 x 4 x 1 x 1	10 x 10 x 7 x 7
2 1/2 x 2 1/2 x 1 1/2 x 1	3 x 2 1/2 x 2 x 1	4 x 3 1/2 x 2 1/2 x 2	12 x 12 x 10 x 10
2 1/2 x 2 1/2 x 1 1/4 x 1 1/4	3 x 2 1/2 x 2 x 3/4	4 x 3 1/2 x 2 x 2	12 x 12 x 8 x 8

Sizes not Listed Above are Special.

LIST OF SIZES OF STANDARD CAST IRON FITTINGS

BUSHINGS

Bushings reducing one size only up to and including 1½ inches can be furnished either in Cast or Malleable Iron, except ¼x⅛, ⅜x⅛, ⅜x¼ and ½x⅜, which are made in Malleable only. All other sizes are made in Cast Iron.

¼ x ⅛	1¼ x ⅜	2 x ¾	3 x 1¼	4 x 2	5 x 4	7 x 3½	9 x 7
⅜ x ⅛	1¼ x ½	2 x 1	3 x 1½	4 x 2½	5 x 4½	7 x 4	9 x 8
⅜ x ¼	1¼ x ¾	2 x 1¼	3 x 2	4 x 3	6 x 1½	7 x 4½	10 x 4
½ x ¼	1¼ x 1	2 x 1½	3 x 2½	4 x 3½	6 x 2	7 x 5	10 x 5
½ x ⅜	1½ x ¼	2½ x ½	3½ x 1	4½ x 1½	6 x 2½	7 x 6	10 x 6
¾ x ¼	1½ x ⅜	2½ x ¾	3½ x 1¼	4½ x 2	6 x 3	8 x 2	10 x 7
¾ x ⅜	1½ x ½	2½ x 1	3½ x 1½	4½ x 3	6 x 3½	8 x 2½	10 x 8
¾ x ½	1½ x ¾	2½ x 1¼	3½ x 2	4½ x 3½	6 x 4	8 x 3	10 x 9
1 x ¼	1½ x 1	2½ x 1½	3½ x 2½	4½ x 4	6 x 4½	8 x 4	12 x 6
1 x ⅜	1½ x 1¼	2½ x 2	3½ x 3	5 x 2	6 x 5	8 x 5	12 x 8
1 x ½	2 x ¼	3 x ½	4 x 1	5 x 2½	7 x 2	8 x 6	12 x 10
1 x ¾	2 x ⅜	3 x ¾	4 x 1¼	5 x 3	7 x 2½	8 x 7	
1¼ x ¼	2 x ½	3 x 1	4 x 1½	5 x 3½	7 x 3	9 x 6	

ELBOWS—REDUCING SIZES

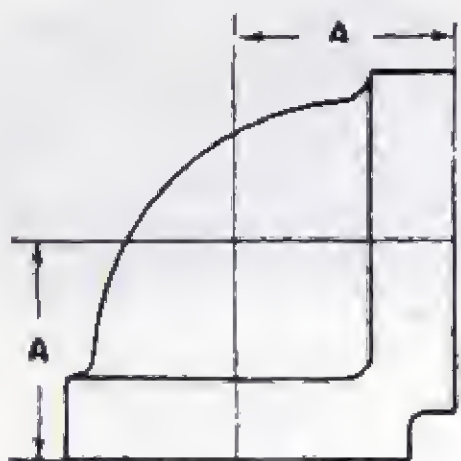
⅜ x ¼	1¼ x ¾	2 x ¾	3½ x 3	5 x 4
½ x ⅜	1¼ x ½	2½ x 2	3½ x 2½	5 x 3
½ x ¼	1¼ x ⅜	2½ x 1½	3½ x 2	5 x 2½
¾ x ½	1½ x 1¼	2½ x 1¼	4 x 3½	6 x 5
¾ x ⅜	1½ x 1	2½ x 1	4 x 3	6 x 4
1 x ¾	1½ x ¾	3 x 2½	4 x 2½	7 x 6
1 x ½	2 x 1½	3 x 2	4 x 2	8 x 7
1 x ⅜	2 x 1¼	3 x 1½	4½ x 4	8 x 6
1¼ x 1	2 x 1	3 x 1¼	5 x 4½	10 x 8

REDUCING COUPLINGS

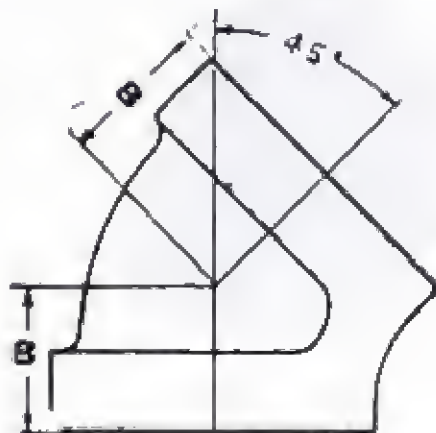
4½ x 4	5 x 3	6 x 4	6 x 2	8 x 4
5 x 4½	5 x 2½	6 x 3½	7 x 6	10 x 8
5 x 4	5 x 2	6 x 3	8 x 7	10 x 6
5 x 3½	6 x 5	6 x 2½	8 x 6	12 x 10

Sizes not Listed Above are Special.

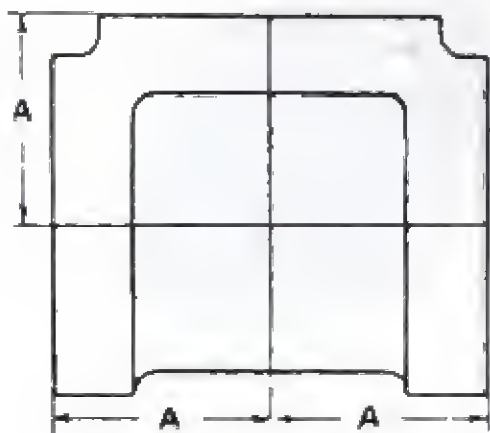
Dimensions of
STANDARD SCREWED FITTINGS



Elbow



45° Elbow



Tee

Size	MALLEABLE		CAST IRON	
	A	B	A	B
1/8	5/8	9/16		
1/4	13/16	5/8	13/16	1/2
3/8	15/16	3/4	1	5/8
1/2	1	7/8	1 1/8	3/4
3/4	1 1/4	1	1 5/16	7/8
1	1 7/16	1 3/16	1 1/2	1
1 1/4	1 3/4	1 1/4	1 3/4	1 3/16
1 1/2	1 15/16	1 3/8	1 15/16	1 5/16
2	2 1/4	1 5/8	2 1/4	1 5/8
2 1/2	2 7/8	1 7/8	2 11/16	1 7/8
3	3 1/4	2 1/8	3 1/8	2 1/8
3 1/2	3 5/8	2 1/4	3 7/16	2 5/16
4	4	2 1/2	3 3/4	2 1/2
4 1/2	4 3/8	2 3/4	4 1/8	2 11/16
5	4 11/16	2 7/8	4 1/2	2 7/8
6	5 5/16	3 1/4	5 1/8	3 5/16
7			5 13/16	3 11/16
8			6 9/16	4 1/16
9			6 7/8	4 1/4
10			8 1/16	4 7/8
12			9 1/2	5 5/8

These measurements are subject to a slight variation and change without notice.

CAST IRON EXTRA HEAVY SCREWED FITTINGS

250 Pounds Working Pressure

ELBOWS



Fig. 194

45° ELBOWS



Fig. 195

TEES



Fig. 196

CROSSES



Fig. 197

Y BRANCHES



Fig. 198

REDUCING COUPLINGS



Fig. 199

Size, inches		$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$
Fig. 194—Elbows	Each	.25	.30	.35	.45	.60	.75	1.25	2.00	2.75
Fig. 194—Elbows, Reducing	Each	.35	.40	.45	.55	.75	.95	1.55	2.50	3.40
Fig. 195—45° Elbows	Each	.35	.40	.45	.55	.70	.90	1.50	2.50	3.50
Fig. 196—Tees	Each	.40	.45	.55	.70	.90	1.15	1.80	3.00	4.25
Fig. 196—Tees, Reducing	Each	.55	.60	.70	.90	1.15	1.40	2.25	3.75	5.30
Fig. 197—Crosses	Each	.60	.65	.70	.90	1.20	1.50	2.50	4.00	5.50
Fig. 198—Y Branches	Each			1.10	1.35	1.80	2.25	3.75	6.00	8.25
Fig. 199—Reducing Couplings, Ea.		.28	.33	.39	.50	.66	.83	1.38	2.20	3.05
Size, inches		4	$4\frac{1}{2}$	5	6	7	8	10	12	
Fig. 194—Elbows	Each	3.50	4.25	5.50	8.00	12.00	17.00	28.00	40.00	
Fig. 194—Elbows, Reducing	Each	4.40	5.30	6.80	10.00	15.00	21.00	35.00	50.00	
Fig. 195—45° Elbows	Each	4.50	5.50	6.75	9.75	14.50	21.00	34.00	48.00	
Fig. 196—Tees	Each	5.50	6.75	8.25	12.00	18.00	25.00	42.00	60.00	
Fig. 196—Tees, Reducing	Each	6.85	8.50	10.25	15.00	22.50	31.00	52.00	75.00	
Fig. 197—Crosses	Each	7.00	8.50	11.00	16.00	24.00	34.00	56.00	80.00	
Fig. 198—Y Branches	Each	11.00	13.50	16.50	24.00	36.00	50.00	84.00	120.00	
Fig. 199—Reducing Couplings, Ea.		3.85	4.68	6.00	8.80	13.20	18.75	31.00	44.00	

Galvanized Fittings at double above lists.

For list of Standard Reducing Elbows and Tees see page 39.

LIST OF SIZES OF CAST IRON EXTRA HEAVY FITTINGS

REDUCING ELBOWS

$\frac{3}{4}$ x $\frac{1}{2}$ 1 x $\frac{3}{4}$ $1\frac{1}{4}$ x 1 $1\frac{1}{2}$ x $1\frac{1}{4}$	$1\frac{1}{2}$ x 1 2 x $1\frac{1}{2}$ 2 x $1\frac{1}{4}$ 2 x 1	$2\frac{1}{2}$ x 2 $2\frac{1}{2}$ x $1\frac{1}{2}$ 3 x $2\frac{1}{2}$ 3 x 2	4 x 3 5 x 4
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REDUCING TEES

$\frac{3}{4}$ x $\frac{3}{4}$ x $\frac{1}{2}$ $\frac{3}{4}$ x $\frac{3}{4}$ x $\frac{1}{4}$ 1 x 1 x $\frac{3}{4}$ 1 x 1 x $\frac{1}{2}$	2 x 2 x $1\frac{1}{2}$ 2 x 2 x $1\frac{1}{4}$ 2 x 2 x 1 2 x 2 x $\frac{3}{4}$	2 x 2 x $2\frac{1}{2}$ $1\frac{1}{2}$ x $1\frac{1}{2}$ x $2\frac{1}{2}$ 3 x 3 x $2\frac{1}{2}$ 3 x 3 x 2	4 x $2\frac{1}{2}$ x $2\frac{1}{2}$ 4 x 2 x 4 3 x 3 x 4 5 x 5 x 4
1 x 1 x $\frac{1}{4}$ 1 x $\frac{3}{4}$ x $\frac{3}{4}$ 1 x $\frac{3}{4}$ x $\frac{1}{2}$ 1 x $\frac{1}{2}$ x 1	2 x 2 x $\frac{1}{2}$ 2 x 2 x $\frac{1}{4}$ 2 x $1\frac{1}{2}$ x 2 2 x $1\frac{1}{2}$ x $1\frac{1}{2}$	3 x 3 x $1\frac{1}{2}$ 3 x 3 x $1\frac{1}{4}$ 3 x 3 x 1 3 x $2\frac{1}{2}$ x 3	5 x 5 x 3 5 x 5 x $2\frac{1}{2}$ 5 x 5 x 2 5 x 3 x 5
$\frac{3}{4}$ x $\frac{3}{4}$ x 1 $1\frac{1}{4}$ x $1\frac{1}{4}$ x 1 $1\frac{1}{4}$ x $1\frac{1}{4}$ x $\frac{3}{4}$ $1\frac{1}{4}$ x $1\frac{1}{4}$ x $\frac{1}{2}$	2 x $1\frac{1}{2}$ x 1 2 x $1\frac{1}{4}$ x $1\frac{1}{4}$ 2 x 1 x 2 2 x 1 x $1\frac{1}{2}$	3 x $2\frac{1}{2}$ x $2\frac{1}{2}$ 3 x $2\frac{1}{2}$ x 2 3 x $2\frac{1}{2}$ x $1\frac{1}{2}$ 3 x 2 x 3	5 x 2 x 5 6 x 6 x 5 6 x 6 x 4 6 x 6 x 3
$1\frac{1}{4}$ x $1\frac{1}{4}$ x $\frac{1}{4}$ $1\frac{1}{4}$ x 1 x $1\frac{1}{4}$ $1\frac{1}{4}$ x 1 x 1 $1\frac{1}{4}$ x $\frac{3}{4}$ x $1\frac{1}{4}$	2 x $\frac{3}{4}$ x 2 2 x $\frac{1}{2}$ x 2 $1\frac{1}{2}$ x $1\frac{1}{2}$ x 2 $1\frac{1}{4}$ x $1\frac{1}{4}$ x 2	3 x 2 x 2 3 x 2 x $1\frac{1}{2}$ 3 x $1\frac{1}{2}$ x 2 3 x 1 x 3	6 x 6 x $2\frac{1}{2}$ 6 x 6 x 2 6 x 4 x 6 6 x 4 x 4
$1\frac{1}{4}$ x $\frac{1}{2}$ x $1\frac{1}{4}$ $1\frac{1}{4}$ x $\frac{1}{4}$ x $1\frac{1}{4}$ 1 x 1 x $1\frac{1}{4}$ $1\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{4}$	$2\frac{1}{2}$ x $2\frac{1}{2}$ x 2 $2\frac{1}{2}$ x $2\frac{1}{2}$ x $1\frac{1}{2}$ $2\frac{1}{2}$ x $2\frac{1}{2}$ x $1\frac{1}{4}$ $2\frac{1}{2}$ x $2\frac{1}{2}$ x 1	$2\frac{1}{2}$ x $2\frac{1}{2}$ x 3 2 x 2 x 3 $3\frac{1}{2}$ x $3\frac{1}{2}$ x 2 $3\frac{1}{2}$ x $2\frac{1}{2}$ x $2\frac{1}{2}$	7 x 7 x 5 8 x 8 x 6 8 x 8 x 5 8 x 8 x 4
$1\frac{1}{2}$ x $1\frac{1}{2}$ x 1 $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{3}{4}$ $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{2}$ $1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{4}$	$2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{3}{4}$ $2\frac{1}{2}$ x $2\frac{1}{2}$ x $\frac{1}{2}$ $2\frac{1}{2}$ x 2 x $2\frac{1}{2}$ $2\frac{1}{2}$ x 2 x 2	4 x 4 x 3 4 x 4 x $2\frac{1}{2}$ 4 x 4 x 2 4 x 4 x $1\frac{1}{2}$	8 x 8 x 3 8 x 6 x 6 8 x 6 x 4 10 x 10 x 8
$1\frac{1}{2}$ x $1\frac{1}{4}$ x $1\frac{1}{2}$ $1\frac{1}{2}$ x $1\frac{1}{4}$ x $1\frac{1}{4}$ $1\frac{1}{2}$ x 1 x $1\frac{1}{2}$ $1\frac{1}{2}$ x $\frac{3}{4}$ x $1\frac{1}{2}$ $1\frac{1}{2}$ x $\frac{1}{2}$ x $1\frac{1}{2}$	$2\frac{1}{2}$ x 2 x $1\frac{1}{2}$ $2\frac{1}{2}$ x $1\frac{1}{2}$ x $2\frac{1}{2}$ $2\frac{1}{2}$ x $1\frac{1}{2}$ x 2 $2\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{2}$ $2\frac{1}{2}$ x $\frac{3}{4}$ x $2\frac{1}{2}$	4 x 4 x $1\frac{1}{4}$ 4 x 4 x 1 4 x 3 x 4 4 x 3 x 3 4 x $2\frac{1}{2}$ x 4	10 x 10 x 6 10 x 10 x 4 12 x 12 x 10 12 x 12 x 8 12 x 12 x 6

45° Elbows and Crosses are not carried in stock in Reducing sizes, but will be made to order at special prices.

Sizes not listed above are special.

CAST IRON LONG SWEEP FITTINGS

ELBOWS



Fig. 200

DOUBLE BRANCH ELBOWS



Fig. 201

Fig. 200. ELBOWS

Size	Inches	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4
Straight	Each	.32	.40	.55	.80	1.20	2.25	3.25	3.50
Reducing	Each	.45	.60	.83	1.20	1.80	3.38	4.88	5.25
Size	Inches	4 $\frac{1}{2}$	5	6	7	8	9	10	12
Straight	Each	5.50	6.50	8.75	13.00	17.00	25.50	30.00	40.00
Reducing	Each	8.25	9.75	13.13	19.50	25.50	38.25	45.00	60.00

Fig. 201. DOUBLE BRANCH ELBOWS

Size	Inches	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4
Straight	Each	.64	.80	1.10	1.60	2.40	4.50	6.50	7.00
Reducing	Each	.90	1.20	1.65	2.40	3.60	6.75	9.75	10.50
Size	Inches	4 $\frac{1}{2}$	5	6	7	8	9	10	12
Straight	Each	11.00	13.00	17.50	26.00	34.00	51.00	60.00	80.00
Reducing	Each	16.50	19.50	26.25	39.00	51.00	76.50	90.00	120.00

Galvanized Fittings at double above lists.
For list of Standard Elbows, see page 42.

BASE ELBOWS



Fig. 202

BASE TEES



Fig. 202A

Long Sweep Base Tees and Elbows can be furnished to order.

CAST IRON LONG SWEEP FITTINGS

SINGLE SWEEP TEES

DOUBLE SWEEP TEES



Fig. 205



Fig. 206

Fig. 205. TEES

Size.....Inches	1	1¼	1½	2	2½	3	3½	4
Straight.....Each	.48	.60	.82	1.20	1.80	3.40	4.90	5.25
Reducing.....Each	.72	.90	1.23	1.80	2.70	5.10	7.35	7.88
Size.....Inches	4½	5	6	7	8	9	10	12
Straight.....Each	8.25	9.75	13.25	19.50	25.50	38.00	45.00	60.00
Reducing.....Each	12.38	14.63	19.88	29.25	38.25	57.00	67.50	90.00

Fig. 206. DOUBLE SWEEP TEES

Size.....Inches	1	1¼	1½	2	2½	3	3½	4
Straight.....Each	.64	.80	1.10	1.60	2.40	4.50	6.50	7.00
Reducing.....Each	.96	1.20	1.65	2.40	3.60	6.75	9.75	10.50
Size.....Inches	4½	5	6	7	8	9	10	12
Straight.....Each	11.00	13.00	17.50	26.00	34.00	51.00	60.00	80.00
Reducing.....Each	16.50	19.50	26.25	39.00	51.00	76.50	90.00	120.00

CROSSES



Flg. 207

Size.....Inches	1	1¼	1½	2	2½	3	3½	4
Straight.....Each	.85	1.10	1.50	2.15	3.20	6.00	8.75	9.50
Reducing.....Each	1.28	1.65	2.25	3.23	4.80	9.00	13.13	14.25
Size.....Inches	4½	5	6	7	8	9	10	12
Straight.....Each	15.00	17.50	24.00	35.00	45.00	68.00	80.00	107.00
Reducing.....Each	22.50	26.25	36.00	52.50	67.50	102.00	120.00	160.50

Galvanized Fittings at double above lists.
For list of Standard sizes, see page 42.

LIST OF SIZES OF STANDARD CAST IRON LONG SWEEP FITTINGS

DOUBLE BRANCH ELBOWS

1 x 1 x 1 $\frac{1}{2}$	1 $\frac{1}{2}$ x 1 $\frac{1}{2}$ x 2	2 x 2 x 3	2 $\frac{1}{2}$ x 2 $\frac{1}{2}$ x 4
1 $\frac{1}{2}$ x 1 $\frac{1}{2}$ x 1 $\frac{1}{2}$	2 x 2 x 2 $\frac{1}{2}$	2 $\frac{1}{2}$ x 2 $\frac{1}{2}$ x 3	3 x 3 x 4

SINGLE SWEEP TEES

1 $\frac{1}{2}$ x 1 $\frac{1}{2}$ x 1	2 x 2 x 1 $\frac{1}{2}$	2 $\frac{1}{2}$ x 2 x 1 $\frac{1}{2}$	3 $\frac{1}{2}$ x 3 $\frac{1}{2}$ x 1 $\frac{1}{2}$	4 x 3 x 3
1 $\frac{1}{2}$ x 1 x 1	2 x 2 x 1	3 x 3 x 2 $\frac{1}{2}$	3 $\frac{1}{2}$ x 3 $\frac{1}{2}$ x 1 $\frac{1}{4}$	5 x 5 x 3
1 $\frac{1}{2}$ x 1 $\frac{1}{2}$ x 1 $\frac{1}{2}$	2 x 1 $\frac{1}{2}$ x 1 $\frac{1}{2}$	3 x 3 x 2	3 $\frac{1}{2}$ x 3 x 2	5 x 5 x 2
1 $\frac{1}{2}$ x 1 $\frac{1}{2}$ x 1	2 $\frac{1}{2}$ x 2 $\frac{1}{2}$ x 2	3 x 3 x 1 $\frac{1}{2}$	4 x 4 x 3	6 x 6 x 2
1 $\frac{1}{2}$ x 1 $\frac{1}{2}$ x 1 $\frac{1}{2}$	2 $\frac{1}{2}$ x 2 $\frac{1}{2}$ x 1 $\frac{1}{2}$	3 x 3 x 1 $\frac{1}{4}$	4 x 4 x 2 $\frac{1}{2}$	
1 $\frac{1}{2}$ x 1 $\frac{1}{2}$ x 1	2 $\frac{1}{2}$ x 2 $\frac{1}{2}$ x 1 $\frac{1}{4}$	3 x 2 $\frac{1}{2}$ x 2	4 x 4 x 2	
2 x 2 x 1 $\frac{1}{2}$	2 $\frac{1}{2}$ x 2 x 2	3 $\frac{1}{2}$ x 3 $\frac{1}{2}$ x 2	4 x 4 x 1 $\frac{1}{2}$	

Sizes marked - will be charged at a special price unless ordered in lots of 25 or more of a size.

DOUBLE SWEEP TEES

2 x 2 x 1	2 $\frac{1}{2}$ x 2 $\frac{1}{2}$ x 1	3 x 3 x 1	4 x 4 x 2 $\frac{1}{2}$	4 x 3 $\frac{1}{2}$ x 5
2 x 1 $\frac{1}{2}$ x 1 $\frac{1}{2}$	2 $\frac{1}{2}$ x 2 x 2	3 x 2 $\frac{1}{2}$ x 2 $\frac{1}{2}$	3 $\frac{1}{2}$ x 3 x 4	6 x 6 x 4
2 x 1 $\frac{1}{2}$ x 1	2 $\frac{1}{2}$ x 2 x 1 $\frac{1}{2}$	3 x 2 $\frac{1}{2}$ x 2	3 x 3 x 4	4 x 4 x 6
2 $\frac{1}{2}$ x 2 $\frac{1}{2}$ x 2	3 x 3 x 2	2 $\frac{1}{2}$ x 2 $\frac{1}{2}$ x 3	5 x 5 x 3	8 x 8 x 6
2 $\frac{1}{2}$ x 2 $\frac{1}{2}$ x 1 $\frac{1}{2}$	3 x 3 x 1 $\frac{1}{2}$	3 $\frac{1}{2}$ x 3 x 2	4 x 4 x 5	8 x 8 x 4

LONG SWEEP CROSSES

2 $\frac{1}{2}$ x 2 $\frac{1}{2}$ x 1 $\frac{1}{2}$ x 1 $\frac{1}{2}$	4 x 4 x 2 $\frac{1}{2}$ x 2 $\frac{1}{2}$	5 x 5 x 3 x 3	8 x 8 x 6 x 6
3 x 3 x 1 $\frac{1}{2}$ x 1 $\frac{1}{2}$	5 x 5 x 4 x 4	6 x 6 x 4 x 4	8 x 8 x 4 x 4

Sizes not listed above are special.

CAST IRON DRAINAGE FITTINGS

90° ELBOWS



Fig. 208

60° ELBOWS



Fig. 209

45° ELBOWS



Fig. 210

22½° ELBOWS



Fig. 211

11¼° ELBOWS



Fig. 212

5⅝° ELBOWS



Fig. 213

Size, inches.....	1¼	1½	2	2½	3	4	5	6	7	8	10
Figs. 208 to 213—Black...Each	.30	.38	.57	1.20	1.45	2.30	4.25	6.25	11.50	15.00	31.00
Figs. 208 to 213—Galv'd...Each	.52	.67	1.00	2.10	2.55	4.00	7.40	11.00	20.00	26.25	54.00

90° ELBOWS
Long Turn



Fig. 214

45° ELBOWS
Long Turn



Fig. 215

Figs. 214 and 215. LONG TURN ELBOWS

Size, inches.....	1¼	1½	2	2½	3	4	5	6	7	8	10
Figs. 214 and 215—Black...Each	.35	.42	.65	1.40	1.75	2.75	5.25	7.50	13.50	19.00	38.00
Figs. 214 and 215—Galv'd...Each	.60	.72	1.15	2.45	3.10	4.80	9.20	13.15	23.50	33.25	66.50

REDUCING
CLOSET ELBOWS



Fig. 216

Fig. 216. REDUCING CLOSET ELBOWS

Size, inches.....	4 x 5
Fig. 216—Black.....Each	4.25
Fig. 216—Galvanized.....Each	7.40

CAST IRON DRAINAGE FITTINGS

THREE-WAY ELBOWS



Fig. 217

Size, inches		1½	1¾	2	2½	3	4	5	6
Fig. 217—Black	Each	.75	.85	1.10	2.25	3.00	5.00	7.50	13.50
Fig. 217—Galv'd	Each	1.25	1.50	1.95	3.90	5.25	8.75	13.15	23.50

REDUCING THREE-WAY ELBOWS

Size, inches		4 x 3	4 x 5	6 x 4	6 x 5
Fig. 217—Reducing, Black	Each	5.50	8.25	15.00	15.00
Fig. 217—Reducing Galv'd	Each	9.65	14.50	26.25	26.25

TEES



Fig. 218

Size, inches		1½	1¾	2	2½	3	4	5	6	7	8	10
Fig. 218—Black	Each	.45	.55	.80	1.50	2.00	3.25	6.00	8.75	16.00	21.00	43.00
Fig. 218—Galv'd.	Each	.80	1.00	1.40	2.50	3.50	5.70	10.50	15.25	28.00	37.00	75.00

REDUCING TEES



Fig. 219

Size, inches		2x1½ 2x1¾	2½x1½ 2½x2	3x1½ 3x2	4x2 4x3	5x2 5x3 5x4	6x2 6x3 6x4 6x5	7x4	8x4 8x6	10x6
Fig. 219—Black	Each	.90	1.65	2.20	3.60	6.60	9.60	17.60	23.00	47.30
Fig. 219—Galv'd.	Each	1.60	2.75	3.85	6.30	11.55	16.75	30.80	40.70	82.50

CAST IRON DRAINAGE FITTINGS

90° Y BRANCHES
Tee Pattern



Fig. 220

60° Y BRANCHES



Fig. 221

45° Y BRANCHES



Fig. 222

Size, inches.....	1¼	1½	2	2½	3	4	5	6	7	8	10
Fig. 220—Black.....Each	.45	.57	.85	1.80	2.20	3.50	6.50	9.50	17.50	23.00	47.00
Fig. 220—Galv'd.....Each	.80	1.00	1.50	3.15	3.85	6.15	11.35	16.50	30.50	40.00	32.00
Figs. 221 and 222—Black....Each	.52	.65	.95	2.10	2.65	3.85	7.10	10.50		25.00	
Figs. 221 and 222—Galv'd...Each	.90	1.15	1.65	3.70	4.65	6.75	12.50	18.50		44.00	

REDUCING
90° Y BRANCHES
Tee Pattern



Fig. 223

REDUCING
60° Y BRANCHES



Fig. 224

REDUCING
45° Y BRANCHES



Fig. 225

Fig. 223. REDUCING 90° Y BRANCHES TEE PATTERN

Size, inches.....	1½x1 1½x1¼	2x1¼ 2x1½	2½x1¼ 2½x1½ 2½x2	3x1½ 3x2	4x1½ 4x2 4x2½ 4x3	5x2 5x2½ 5x3 5x4	6x2 6x3 6x4 6x5	7x4	8x3 8x4 8x5 8x6	10x3 10x4 10x6
Fig. 223—Black.....Each	.63	.95	2.00	2.40	3.85	7.15	10.50	19.00	25.50	52.00
Fig. 223—Galv'd.....Each	1.10	1.65	3.50	4.20	6.75	12.50	18.50	33.25	44.50	88.00

Figs. 224 and 225. REDUCING 60° AND 45° Y BRANCHES

Size, inches.....	1½x1¼	2x1½	2½x1½ 2½x2	3x1½ 3x2 3x2½	4x1½ 4x2 4x3	5x2 5x3 5x4	6x2 6x3 6x4 6x5	7x3 7x4 7x5 7x6	8x3 8x4 8x5 8x6	10x4 10x5 10x6 10x8
Fig. 224—60°, Black....Each		1.05	2.30	2.90	4.25	7.80	11.50		27.50	
Fig. 224—60°, Galv'd. Each		1.85	4.00	5.10	7.40	13.65	20.00		48.00	
Fig. 225—45°, Black....Each	.72	1.05	2.30	2.90	4.25	7.80	11.50	21.00	27.50	57.00
Fig. 225—45°, Galv'd. Each	1.25	1.85	4.00	5.10	7.40	13.65	20.00	37.00	48.00	97.00

CAST IRON DRAINAGE FITTINGS

90° DOUBLE Y BRANCHES
Tee Pattern



Fig. 226

REDUCING 90° DOUBLE Y BRANCHES
Tee Pattern



Fig. 227

Fig. 226. 90° DOUBLE Y BRANCHES—TEE PATTERN

Size, inches		1 1/4	1 1/2	2	2 1/2	3	4	5	6	7	8	10
Fig. 226—Black	Each	.70	.85	1.30	2.85	3.40	5.25	9.50	14.00	25.00	36.00	60.00
Fig. 226—Galv'd.	Each	1.22	1.50	2.30	5.00	5.95	9.20	16.50	24.50	42.50	62.00	102.00

Fig. 227. REDUCING 90° DOUBLE Y BRANCHES—TEE PATTERN

Size, inches		1 1/2 x 1 1/4	2 x 1 1/4 2 x 1 1/2	2 1/2 x 1 1/2 2 1/2 x 2	3 x 1 1/2 3 x 2	4 x 2 4 x 3	5 x 2 5 x 3 5 x 4	6 x 2 6 x 3 6 x 4 6 x 5	7 x 4	8 x 3 8 x 4 8 x 6	10 x 4 10 x 6
Fig. 227—Black	Each	.95	1.50	3.15	3.75	5.75	10.50	15.50	27.50	40.00	66.00
Fig. 227—Galv'd.	Each	1.65	2.60	5.50	6.55	10.00	18.50	27.00	46.75	68.00	112.00

45° DOUBLE Y BRANCHES



Fig. 228

REDUCING 45° DOUBLE Y BRANCHES



Fig. 229

Fig. 228. 45° DOUBLE Y BRANCHES

Size, inches		1 1/4	1 1/2	2	2 1/2	3	4	5	6	7	8	10
Fig. 228—Black	Each	.90	1.00	1.45	3.25	4.00	5.75	10.75	16.00	28.50	38.00	78.00
Fig. 228—Galv'd.	Each	1.60	1.75	2.55	5.70	7.00	10.00	18.80	28.00	50.00	66.50	137.00

Fig. 229. REDUCING 45° DOUBLE Y BRANCHES

Size, inches		1 1/2 x 1 1/4	2 x 1 1/4 2 x 1 1/2	2 1/2 x 1 1/4 2 1/2 x 1 1/2 2 1/2 x 2	3 x 1 1/2 3 x 2	4 x 2 4 x 3	5 x 2 5 x 3 5 x 4	6 x 2 6 x 3 6 x 4 6 x 5	7 x 3 7 x 4 7 x 5	8 x 3 8 x 4 8 x 5 8 x 6	10 x 4 10 x 6 10 x 8
Fig. 229—Black	Each	1.10	1.60	3.60	4.40	6.35	11.75	17.50	31.50	42.00	86.00
Fig. 229—Galv'd.	Each	1.90	2.80	6.30	7.70	11.00	20.50	30.50	54.00	72.00	146.00

CAST IRON DRAINAGE FITTINGS

90° Y BRANCHES
Long Turn—Tee Pattern



Fig. 230

REDUCING 90° Y BRANCHES
Long Turn—Tee Pattern



Fig. 231

Fig. 230. 90° Y BRANCHES, LONG TURN—TEE PATTERN

Size, inches.....	1¼	1½	2	2½	3	4	5	6	7	8
Fig. 230—Black.....Each	.57	.70	1.10	2.40	3.35	6.00	9.50	20.00	30.00	40.00
Fig. 230—Galv'd.....Each	1.00	1.22	1.95	4.20	5.85	10.50	16.50	35.00	52.00	70.00

Fig. 231. REDUCING 90° Y BRANCHES, LONG TURN—TEE PATTERN

Size, inches.....	1½x1 1½x1¼	2x1¼ 2x1½	2½x1¼ 2½x1½ 2½x2	3x1½ 3x2 3x2½	4x1½ 4x2 4x2½ 4x3	5x2 5x2½ 5x3 5x4	6x2 6x3 6x4 6x5	7x3 7x4 7x5 7x6	8x3 8x4 8x6
Fig. 231—Black.....Each	.80	1.20	2.65	3.75	6.60	10.50	22.00	33.00	44.00
Fig. 231—Galv'd.....Each	1.40	2.10	4.65	6.55	11.55	18.50	38.50	58.00	77.00

90° DOUBLE Y BRANCHES
Long Turn—Tee Pattern

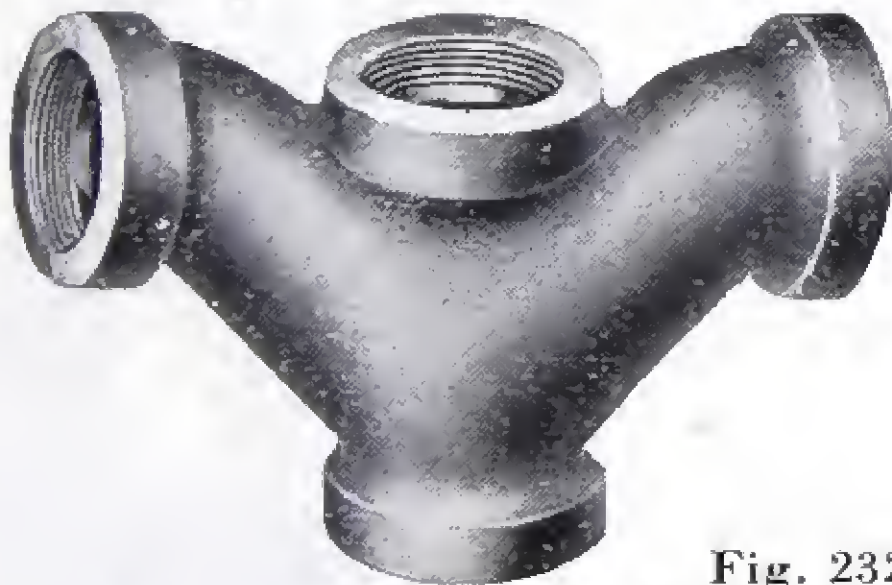


Fig. 232

REDUCING 90° DOUBLE Y BRANCHES
Long Turn—Tee Pattern



Fig. 233

Fig. 232. 90° DOUBLE Y BRANCHES, LONG TURN—TEE PATTERN

Size, inches.....	1¼	1½	2	2½	3	4	5	6	7	8
Fig. 232—Black.....Each	1.00	1.10	1.75	3.60	5.00	9.00	14.00	30.00	45.00	60.00
Fig. 232—Galv'd.....Each	1.75	1.95	3.10	6.30	8.75	15.75	24.50	52.50	79.00	105.00

Fig. 233. REDUCING 90° DOUBLE Y BRANCHES, LONG TURN—TEE PATTERN

Size, inches.....	1½x1 1½x1¼	2x1¼ 2x1½	2½x1¼ 2½x1½ 2½x2	3x1½ 3x2	4x1½ 4x2 4x2½ 4x3	5x1½ 5x2 5x3 5x4	6x2 6x3 6x4 6x5	7x4	8x3 8x4 8x6
Fig. 233—Black.....Each	1.25	1.90	4.00	5.50	10.00	15.50	33.00	50.00	66.00
Fig. 233—Galv'd.....Each	2.25	3.35	7.00	9.65	17.50	27.00	58.00	85.00	112.00

CAST IRON DRAINAGE FITTINGS

90° ELBOWS
With Side Outlet



Fig. 234

90° ELBOWS
With Heel Outlet



Fig. 235

Size, inches..		4
Figs. 234 and 235—Black	Each	3.85
Figs. 234 and 235—Galvanized	Each	6.75

INCREASERS



Fig. 236

Size, inches		1½x1½	2x1½	2½x2	3x2	4x2 4x3	5x2 5x3 5x4	6x3 6x4 6x5	7x4 7x5 7x6	8x4 8x6 8x7
Fig. 236—Black	Each	1.50	1.75	2.00	2.50	3.75	5.50	6.50	12.00	15.00
Fig. 236—Galvanized	Each	2.60	3.00	3.50	4.40	6.55	9.65	11.35	20.00	26.25



Fig. 237

CLOSET FLANGES
With Recess for Ring Gasket



Fig. 238

Size and Diameter, inches.		4 x 7	4 x 10
Fig. 237—Black	Each	1.35	1.70
Fig. 237—Galvanized	Each	2.35	2.95
Fig. 238—Black	Each	1.35	
Fig. 238—Galvanized	Each	2.35	

CAST IRON DRAINAGE FITTINGS

S TRAPS



Fig. 239

THREE-QUARTER S TRAPS



Fig. 240

Size, inches.....	2	3	4	5	6	8
Fig. 239—Black Each	4.00	9.25	14.00	21.00	36.00	60.00
Fig. 239—Galv'd.. Each	7.00	16.00	24.00	37.00	63.00	105.00
Fig. 240—Black Each	4.00	9.25	14.00	21.00	36.00	
Fig. 240—Galv'd.. Each	7.00	16.00	24.00	37.00	63.00	
Size of Cleanout, inches.....	1	1¼	2	2	2	3
Size of Vent, inches.....	2	3	4	4	4	6

HALF S TRAPS



Fig. 241

RUNNING TRAPS



Fig. 242

Size, inches.....	1¼	1½	2	3	4	5	6	8	10
Fig. 241—Black..... Each	1.55	1.70	2.20	5.00	10.00	21.50	32.50	55.00	100.00
Fig. 241—Galv'd..... Each	2.70	3.00	3.85	8.75	17.50	37.50	57.00	95.00	175.00
Fig. 242—Black..... Each	2.40	2.70	3.30	5.50	9.75	24.50	33.50	65.00	115.00
Fig. 242—Galv'd..... Each	4.20	4.70	5.75	9.50	17.00	43.00	58.50	115.00	200.00
Size of Vent, inches.....	1¼	1½	2	3	4	4	4	6	6

SPRINKLER FITTINGS

CAST IRON

FOR FIRE PROTECTION SERVICE

For Water Working Pressures up to 150 Pounds

ELBOWS



Style A



Style B



Style C



Style D



Style E

TEES



Style G



Style H



Style K



Style L



Style M



Style N

CROSSES



Style O



Style P



Style R



Style S

Size.....	Inches	2½	3	3½	4	5	6
Style A. Elbows.....	Each	1.20	2.25	3.25	3.50	6.50	8.75
Style B. Elbows.....	Each	5.50	6.00	6.50	7.50	10.00	14.00
Style C. Elbows.....	Each	6.75	7.50	8.50	10.00	12.50	17.50
Style D. Elbows.....	Each		8.00		11.00	15.00	18.00
Style G. Tees.....	Each	2.40	4.50	6.50	7.00	13.00	17.50
Style G. Tees. Reducing.....	Each	3.60	6.75	9.75	10.50	19.50	26.25
Style H. Tees.....	Each	9.00	10.00	11.00	12.00	15.00	22.00
Style K. Tees.....	Each	9.00	10.00	11.00	12.00	15.00	22.00
Style L. Tees.....	Each	9.00	10.00	11.00	12.00	15.00	22.00
Style M. Tees.....	Each	9.00	10.00	11.00	12.00	15.00	22.00
Style N. Tees.....	Each	10.00	11.50	13.00	15.00	18.00	26.00
Style O. Crosses.....	Each	3.20	6.00	8.75	9.50	17.50	24.00
Style P. Crosses.....	Each	12.50	13.50	15.00	17.00	22.00	30.00
Style R. Crosses.....	Each	12.50	13.50	15.00	17.00	22.00	30.00
Style S. Crosses.....	Each	13.50	15.00	17.00	20.00	25.00	35.00

Galvanized Fittings at double above lists.

The above prices include Facing and Drilling of the Flanges.

CAST IRON FLANGED FITTINGS

125 Pounds Working Pressure

ELBOWS



Fig. 243



Fig. 244

Fig. 243. 90° ELBOW

Size.....Inches	2	2½	3	3½	4	4½	5	6	7	8
Faced only.....Each	3.00	3.15	3.45	4.05	4.50	5.50	6.25	7.60	10.50	12.00
Faced and Drilled.....Each	3.60	3.75	4.15	4.90	5.50	6.50	7.25	8.90	12.00	13.60
Size.....Inches	9	10	12	14	15	16	18	20	22	24
Faced only.....Each	17.00	19.00	28.00	41.50	47.00	54.50	71.00	90.00	113.00	140.00
Faced and Drilled.....Each	19.25	21.70	31.00	45.25	51.50	59.50	77.00	97.00	122.00	150.00

Fig. 244. 45° ELBOW

Size.....Inches	2	2½	3	3½	4	4½	5	6	7	8
Faced only.....Each	3.30	3.50	3.80	4.50	5.00	6.00	6.90	8.35	11.00	12.60
Faced and Drilled.....Each	3.90	4.10	4.50	5.35	6.00	7.00	7.90	9.65	12.50	14.20
Size.....Inches	9	10	12	14	15	16	18	20	22	24
Faced only.....Each	17.75	20.00	29.50	41.50	47.00	54.50	71.00	90.00	113.00	140.00
Faced and Drilled.....Each	20.00	22.70	32.50	45.25	51.50	59.50	77.00	97.00	122.00	150.00



Fig. 245. LONG RADIUS ELBOW

Size.....Inches	2	2½	3	3½	4	4½	5	6	7
Faced only.....Each	5.00	5.25	5.75	6.75	7.50	9.25	10.00	12.65	17.50
Faced and Drilled.....Each	5.90	6.15	6.85	8.00	9.00	10.75	12.00	14.60	19.75
Size.....Inches	8	9	10	12	14	15	16	18	20
Faced only.....Each	20.00	28.50	31.50	46.50	69.00	78.00	91.00	118.00	150.00
Faced and Drilled.....Each	22.40	31.85	35.50	51.00	74.50	84.75	98.50	127.00	160.00

Dimensions, page 63. Drilling Templates, page 64.
Extra for Galvanizing, page 76.

CAST IRON FLANGED FITTINGS

125 Pounds Working Pressure

BASE ELBOWS



Fig. 246

Size	Inches	4	4½	5	6	7	8	9
Faced only except Base Flange.....	Each	9.00	11.00	12.50	15.25	21.00	24.00	34.00
Faced and Drilled except Base Flange....	Each	10.00	12.00	13.50	16.55	22.50	25.60	36.25
Facing and Drilling Base Flange.....	Each	3.00	3.00	3.50	3.50	3.50	5.00	5.00
Size	Inches	10	12	14	15	16	18	
Faced only except Base Flange.....	Each	38.00	56.00	70.00	80.00	90.00	105.00	
Faced and Drilled except Base Flange.....	Each	40.70	59.00	73.75	84.50	95.00	111.00	
Facing and Drilling Base Flange.....	Each	5.00	7.50	7.50	7.50	7.50	12.00	

TAPER REDUCING ELBOWS



Fig. 247

Size	Faced only	Faced and Drilled	Size	Faced only	Faced and Drilled
3 x 1½	6.90	7.60	8 x 4	24.00	25.60
3 x 2	6.90	7.60	8 x 5	24.00	25.60
3 x 2½	6.90	7.60	8 x 6	24.00	25.60
3½ x 2½	8.10	8.95	9 x 8	34.00	36.25
3½ x 3	8.10	8.95	10 x 5	38.00	40.70
4 x 2	9.00	10.00	10 x 6	38.00	40.70
4 x 2½	9.00	10.00	10 x 8	38.00	40.70
4 x 3	9.00	10.00	10 x 9	38.00	40.70
5 x 2½	12.50	13.50	12 x 6	56.00	59.00
5 x 3	12.50	13.50	12 x 7	56.00	59.00
5 x 4	12.50	13.50	12 x 8	56.00	59.00
6 x 2½	15.25	16.55	12 x 10	56.00	59.00
6 x 3	15.25	16.55	14 x 10	70.00	73.75
6 x 3½	15.25	16.55	14 x 12	70.00	73.75
6 x 4	15.25	16.55	15 x 10	80.00	84.50
6 x 5	15.25	16.55	15 x 12	80.00	84.50
7 x 5	21.00	22.50	16 x 12	90.00	95.00
7 x 6	21.00	22.50	16 x 14	90.00	95.00
8 x 3½	24.00	25.60	16 x 15	90.00	95.00

Dimensions Page 63. Drilling Templates Page 64. Extra for Galvanizing Page 76.

CAST IRON FLANGED FITTINGS

125 Pounds Working Pressure

LATERALS



Fig. 248

Fig. 248. STRAIGHT

Size .. .. .Inches	2	2½	3	3½	4	4½	5	6	7
Faced only.....Each	6.75	6.95	7.65	9.00	10.00	12.00	13.75	16.75	23.00
Faced and Drilled.....Each	7.95	8.15	9.05	10.70	12.00	14.00	15.75	19.25	26.00
Size.....Inches	8	9	10	12	14	15	16	18	
Faced only .. .. .Each	26.50	37.50	42.00	61.50	91.00	103.00	120.00	157.00	
Faced and Drilled.....Each	29.75	42.00	47.50	67.50	98.50	112.00	130.00	169.00	

Fig. 248. REDUCING

Size .. .. .Inches	2	2½	3	3½	4	4½	5	6	7
Faced only .. .. .Each	7.75	8.00	8.75	10.35	11.50	13.75	15.75	19.25	26.50
Faced and Drilled.....Each	8.95	9.20	10.15	12.05	13.50	15.75	17.75	21.75	29.50
Size.....Inches	8	9	10	12	14	15	16	18	
Faced only.. .. .Each	30.50	43.00	48.00	71.00	105.00	118.00	138.00	180.00	
Faced and Drilled.....Each	33.75	47.50	53.50	77.00	112.50	127.00	148.00	192.00	

Extra for Galvanizing, page 76.
List of Standard Sizes, page 61.

ELBOWS WITH SIDE
OUTLET



Fig. 249

Fig. 249. STRAIGHT

Size. ....Inches	4	5	6	7	8	10	12	14	16
Faced only.....Each	26.60	28.50	33.00	40.25	47.50	76.00	100.50	129.50	152.50
Faced and Drilled.....Each	28.00	30.00	35.00	42.50	50.00	80.00	105.00	135.00	160.00

Fig. 249. REDUCING

Size.....Inches	4	5	6	7	8	10	12	14	16
Faced only.....Each	29.50	31.50	36.00	44.75	52.50	84.00	110.50	144.50	167.50
Faced and Drilled.....Each	31.00	33.00	38.00	47.00	55.00	88.00	115.00	150.00	175.00

Dimensions, page 63. Drilling Templates, page 64.

CAST IRON FLANGED FITTINGS

125 Pounds Working Pressure



Fig. 250

TEES



Fig. 251

CROSSES

Fig. 250. TEES; STRAIGHT

Size.....	Inches	2	2½	3	3½	4	4½	5	6	7	8
Faced only.....	Each	4.35	4.55	5.00	5.85	6.50	8.00	9.10	11.00	15.25	17.40
Faced and Drilled.....	Each	5.25	5.45	6.10	7.10	8.00	9.50	10.60	12.95	17.50	19.80
Size.....	Inches	9	10	12	14	15	16	18	20	22	24
Faced only.....	Each	24.65	27.50	40.50	60.00	68.00	79.00	103.00	130.00	164.00	203.00
Faced and Drilled.....	Each	28.00	31.50	45.00	65.50	74.75	86.50	112.00	140.00	177.00	218.00

Fig. 250. TEES, REDUCING

Size.....	Inches	2	2½	3	3½	4	4½	5	6	7	8
Faced only.....	Each	5.00	5.25	5.75	6.75	7.50	9.25	10.50	12.65	17.50	20.00
Faced and Drilled.....	Each	5.90	6.15	6.85	8.00	9.00	10.75	12.00	14.60	19.75	22.40
Size.....	Inches	9	10	12	14	15	16	18	20	22	24
Faced only.....	Each	28.50	31.50	46.50	69.00	78.00	91.00	118.00	150.00	189.00	233.00
Faced and Drilled.....	Each	31.85	35.50	51.00	74.50	84.75	98.50	127.00	160.00	202.00	248.00

Fig. 251. CROSSES, STRAIGHT

Size.....	Inches	2	2½	3	3½	4	4½	5	6	7	8
Faced only.....	Each	6.75	6.95	7.65	9.00	10.00	12.00	13.75	16.75	23.00	26.50
Faced and Drilled.....	Each	7.95	8.15	9.05	10.70	12.00	14.00	15.75	19.25	26.00	29.75
Size.....	Inches	9	10	12	14	15	16	18	20	22	24
Faced only.....	Each	37.50	42.00	61.50	91.00	103.00	120.00	157.00	198.00	248.00	310.00
Faced and Drilled.....	Each	42.00	47.50	67.50	98.50	112.00	130.00	169.00	212.00	266.00	330.00

Fig. 251. CROSSES, REDUCING

Size.....	Inches	2	2½	3	3½	4	4½	5	6	7	8
Faced only.....	Each	7.75	8.00	8.75	10.35	11.50	13.75	15.75	19.25	26.50	30.50
Faced and Drilled.....	Each	8.95	9.20	10.15	12.05	13.50	15.75	17.75	21.75	29.50	33.75
Size.....	Inches	9	10	12	14	15	16	18	20	22	24
Faced only.....	Each	43.00	48.00	71.00	105.00	118.00	138.00	180.00	228.00	285.00	355.00
Faced and Drilled.....	Each	47.50	53.50	77.00	112.50	127.00	148.00	192.00	242.00	303.00	375.00

Dimensions, page 63. Drilling Templates, page 64.
Extra for Galvanizing, see page 76.
List of Standard Sizes, page 61.

CAST IRON FLANGED FITTINGS

125 Pounds Working Pressure

TAPER REDUCERS



Fig. 252

Size Inches	Faced Each	Faced and Drilled Each	Size Inches	Faced Each	Faced and Drilled Each
3 x 2	6.90	7.60	10 x 4	38.00	40.70
3 x 2½	6.90	7.60	10 x 5	38.00	40.70
3½ x 2½	8.10	8.95	10 x 6	38.00	40.70
4 x 2	9.00	10.00	10 x 8	38.00	40.70
4 x 2½	9.00	10.00	12 x 5	56.00	59.00
4 x 3	9.00	10.00	12 x 6	56.00	59.00
4½ x 2	11.00	12.00	12 x 8	56.00	59.00
4½ x 3	11.00	12.00	12 x 10	56.00	59.00
5 x 2	12.50	13.50	14 x 6	70.00	73.75
5 x 2½	12.50	13.50	14 x 8	70.00	73.75
5 x 3	12.50	13.50	14 x 10	70.00	73.75
5 x 4	12.50	13.50	14 x 12	70.00	73.75
6 x 3	15.25	16.55	15 x 8	80.00	84.50
6 x 3½	15.25	16.55	15 x 10	80.00	84.50
6 x 4	15.25	16.55	15 x 12	80.00	84.50
6 x 5	15.25	16.55	15 x 14	80.00	84.50
7 x 3	21.00	22.50	16 x 8	90.00	95.00
7 x 4	21.00	22.50	16 x 10	90.00	95.00
7 x 5	21.00	22.50	16 x 12	90.00	95.00
7 x 6	21.00	22.50	16 x 14	90.00	95.00
8 x 3	24.00	25.60	18 x 10	105.00	111.00
8 x 4	24.00	25.60	18 x 12	105.00	111.00
8 x 5	24.00	25.60	18 x 14	105.00	111.00
8 x 6	24.00	25.60	18 x 16	105.00	111.00
9 x 4	34.00	36.25	20 x 12	120.00	127.00
9 x 5	34.00	36.25	20 x 14	120.00	127.00
9 x 6	34.00	36.25	20 x 16	120.00	127.00
9 x 8	34.00	36.25	20 x 18	120.00	127.00

Dimensions, page 63. Drilling Templates, page 64.



Fig. 253

ECCENTRIC TAPER REDUCERS

Eccentric Taper Reducers are not carried in stock, but are furnished to order.

Prices on application.

CAST IRON FLANGED FITTINGS

125 Pounds Working Pressure

LONG SWEEP ELBOWS



Fig. 254

Size Inches	2	2½	3	3½	4	4½	5	6	7
Faced only.....Each	5.00	5.25	5.75	6.75	7.50	9.25	10.50	12.65	17.50
Faced and Drilled.....Each	5.90	6.15	6.85	8.00	9.00	10.75	12.00	14.60	19.75
Size Inches	8	9	10	12	14	15	16	18	20
Faced only.....Each	20.00	28.50	31.50	46.50	69.00	78.00	91.00	118.00	150.00
Faced and Drilled.....Each	22.40	31.85	35.50	51.00	74.50	84.75	98.50	127.00	160.00

DOUBLE BRANCH ELBOWS



Fig. 255

Fig. 255. STRAIGHT

Size.....Inches	4	5	6	7	8	10	12	14	16
Faced only.....Each	28.50	36.00	38.00	42.75	47.50	66.00	90.50	119.50	142.50
Faced and Drilled.....Each	30.00	37.50	40.00	45.00	50.00	70.00	95.00	125.00	150.00

Fig. 255. REDUCING

Size.....Inches	4	5	6	7	8	10	12	14	16
Faced only.....Each	31.50	39.50	42.00	47.75	52.50	73.50	100.50	132.50	157.50
Faced and Drilled.....Each	33.00	41.00	44.00	50.00	55.00	77.50	105.00	138.00	165.00

Lists given above for Reducing Sizes are for Fittings Reducing on the Branches with Branches same size. If wanted otherwise they can be made to order at a special price.
Dimensions, page 63. Drilling Templates, page 64.

SINGLE SWEEP TEES

DOUBLE SWEEP TEES



CAST IRON FLANGED FITTINGS

125 Pounds Working Pressure

Fig. 256

Figs. 256 and 257. STRAIGHT

Fig. 257

Size.....Inches	2	2½	3	3½	4	4½	5	6
Faced only.....Each	5.00	5.25	5.75	6.75	7.50	9.25	10.50	12.65
Faced and Drilled.....Each	5.90	6.15	6.85	8.00	9.00	10.75	12.00	14.60
Size.....Inches	7	8	9	10	12	14	15	16
Faced only.....Each	17.50	20.00	28.50	31.50	46.50	69.00	78.00	91.00
Faced and Drilled.....Each	19.75	22.40	31.85	35.50	51.00	74.50	84.75	98.50

Figs. 256 and 257. REDUCING

Size.....Inches	2	2½	3	3½	4	4½	5	6
Faced only.....Each	5.75	6.00	6.60	7.75	8.65	10.60	12.00	14.50
Faced and Drilled.....Each	6.65	6.90	7.70	9.00	10.15	12.10	13.50	16.45
Size.....Inches	7	8	9	10	12	14	15	16
Faced only.....Each	20.00	23.00	32.75	36.00	53.50	79.00	90.00	105.00
Faced and Drilled.....Each	22.25	25.40	36.10	40.00	58.00	84.50	96.75	112.50

TEES WITH SIDE OUTLET



Fig. 258

Fig. 258. STRAIGHT

Size.....Inches	4	5	6	7	8	10	12	14	16
Faced only.....Each	31.00	35.00	42.25	49.50	56.75	84.50	114.00	142.50	170.00
Faced and Drilled.....Each	33.00	37.00	45.00	52.50	60.00	90.00	120.00	150.00	180.00

Fig. 258. REDUCING

Size.....Inches	4	5	6	7	8	10	12	14	16
Faced only.....Each	34.00	39.00	47.25	55.00	62.75	94.50	126.00	157.50	190.00
Faced and Drilled.....Each	36.00	41.00	50.00	58.00	66.00	100.00	132.00	165.00	200.00

Single Sweep Tees are not made with Side Openings larger than the Run.
Double Sweep Tees are made Reducing on the Run to order only.
Dimensions, page 63. Drilling Templates, page 64.

STANDARD CAST IRON FLANGES
Not Faced or Drilled



Fig. 259

Size Inches	Price Each	Size Inches	Price Each	Size Inches	Price Each
$\frac{3}{4}$ x 4	.22	4 x $8\frac{1}{2}$	1.00	7 x $13\frac{1}{2}$	2.80
$1\frac{1}{4}$ x $4\frac{1}{2}$	.25	3 x 9	1.15	8 x $13\frac{1}{2}$	2.80
$\frac{3}{4}$ x 5	.30	$3\frac{1}{2}$ x 9	1.15	6 x 14	3.25
1 x 5	.30	4 x 9	1.15	7 x 14	3.25
$1\frac{1}{4}$ x 5	.30	$4\frac{1}{2}$ x 9	1.15	8 x 14	3.25
$1\frac{1}{2}$ x 5	.30	$4\frac{1}{2}$ x $9\frac{1}{4}$	1.25	7 x 15	4.00
1 x 6	.42	$3\frac{1}{2}$ x 10	1.50	8 x 15	4.00
$1\frac{1}{4}$ x 6	.40	4 x 10	1.50	9 x 15	4.00
$1\frac{1}{2}$ x 6	.40	$4\frac{1}{2}$ x 10	1.50	8 x 16	5.00
2 x 6	.42	5 x 10	1.50	9 x 16	5.00
$2\frac{1}{2}$ x 6	.42	6 x 10	1.50	10 x 16	5.00
2 x $6\frac{1}{2}$	.50	$4\frac{1}{2}$ x 11	1.75	9 x 17	5.75
$2\frac{1}{2}$ x $6\frac{1}{2}$	.50	5 x 11	1.75	10 x 17	5.75
3 x $6\frac{1}{2}$	.50	6 x 11	1.75	10 x 18	7.00
2 x 7	.62	5 x 12	2.20	12 x 18	7.00
$2\frac{1}{2}$ x 7	.62	6 x 12	2.20	10 x 19	7.50
3 x 7	.62	7 x 12	2.20	12 x 19	7.50
3 x $7\frac{1}{2}$	.75	5 x $12\frac{1}{2}$	2.20	12 x 20	8.50
2 x 8	.90	6 x $12\frac{1}{2}$	2.20	14 x 20	8.50
$2\frac{1}{2}$ x 8	.90	7 x $12\frac{1}{2}$	2.20	14 x 21	9.50
3 x 8	.90	6 x 13	2.80	15 x 21	9.50
$3\frac{1}{2}$ x 8	.90	7 x 13	2.80	15 x $22\frac{1}{4}$	14.00
4 x 8	.90	8 x 13	2.80	16 x $23\frac{1}{2}$	18.00
$3\frac{1}{2}$ x $8\frac{1}{2}$	1.00	6 x $13\frac{1}{2}$	2.80		

Sizes 14 inch and larger are to be used with O. D. Pipe of same sizes.
The above is considered a complete list. Other sizes made to order.

CAST IRON COMPANION FLANGES

125 Pounds Working Pressure



Fig. 260

Size Inches	Faced Each	Faced and Drilled Each	Size Inches	Faced Each	Faced and Drilled Each
1 x 4	.55	.80	8 x 13½	3.10	3.80
1¼ x 4½	.60	.85	9 x 15	3.85	4.65
1½ x 5	.65	.90	10 x 16	4.50	5.50
2 x 6	.75	1.00	12 x 19	6.50	7.65
2½ x 7	.85	1.10	14 x 21	9.00	10.35
3 x 7½	.95	1.25	15 x 21	11.50	13.20
3½ x 8½	1.20	1.55	15 x 22¼	11.50	13.20
4 x 9	1.35	1.80	16 x 23½	13.50	15.30
4½ x 9¼	1.45	1.90	18 x 25	16.00	18.00
5 x 10	1.60	2.05	20 x 27½	19.00	21.50
6 x 11	2.00	2.50	22 x 29½	22.00	25.00
7 x 12½	2.65	3.25	24 x 32	27.00	30.50

CAST IRON BLIND FLANGES

125 Pounds Working Pressure

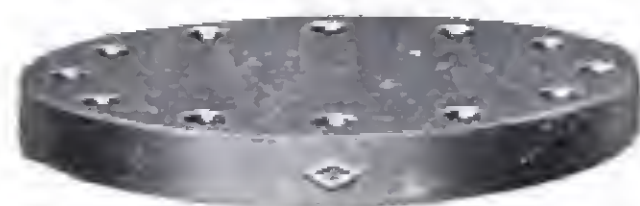


Fig. 261

Size Inches	Faced Each	Faced and Drilled Each	Size Inches	Faced Each	Faced and Drilled Each
1 x 4	.85	1.10	12 x 19	9.75	10.90
1¼ x 4½	.90	1.15	14 x 21	13.50	14.85
1½ x 5	1.00	1.25	15 x 22¼	17.00	18.70
2 x 6	1.15	1.40	16 x 23½	20.00	21.80
2½ x 7	1.30	1.55	18 x 25	24.00	26.00
3 x 7½	1.40	1.70	20x 27½	28.00	30.50
3½ x 8½	1.80	2.15	22 x 29½	33.00	36.00
4 x 9	2.00	2.45	24 x 32	40.00	43.50
4½ x 9¼	2.20	2.65	26 x 34¼	62.50	70.00
5 x 10	2.40	2.85	28 x 36½	77.50	85.00
6 x 11	3.00	3.50	30 x 38¾	90.00	100.00
7 x 12½	4.00	4.60	32 x 41¾	110.00	120.00
8 x 13½	4.60	5.30	34 x 43¾	122.50	135.00
9 x 15	5.75	6.55	36 x 46	137.50	150.00
10 x 16	6.75	7.75			

Drilling Templates, page 64.

Extra for Galvanizing, page 76.

CAST IRON REDUCING COMPANION FLANGES

125 Pounds Working Pressure



Fig. 262

Size Inches	Faced Each	Faced and Drilled Each	Size Inches	Faced Each	Faced and Drilled Each	Size Inches	Faced Each	Faced and Drilled Each
1 x 6	1.30	1.55	4½ x 11	3.30	3.80	8 x 21	15.00	16.35
1¼ x 6	1.30	1.55	5 x 11	3.30	3.80	9 x 21	15.00	16.35
1½ x 6	1.30	1.55	4 x 12½	4.40	5.00	10 x 21	15.00	16.35
1½ x 7	1.45	1.70	4½ x 12½	4.40	5.00	12 x 21	15.00	16.35
2 x 7	1.45	1.70	5 x 12½	4.40	5.00	8 x 22¼	19.00	20.70
1½ x 7½	1.55	1.85	6 x 12½	4.40	5.00	10 x 22¼	19.00	20.70
2 x 7½	1.55	1.85	2 x 13½	5.10	5.80	12 x 22¼	19.00	20.70
2½ x 7½	1.55	1.85	2½ x 13½	5.10	5.80	14 x 22¼	19.00	20.70
2 x 8½	2.00	2.35	3 x 13½	5.10	5.80	10 x 23½	22.00	23.80
2½ x 8½	2.00	2.35	4 x 13½	5.10	5.80	12 x 23½	22.00	23.80
3 x 8½	2.00	2.35	5 x 13½	5.10	5.80	14 x 23½	22.00	23.80
2 x 9	2.20	2.65	6 x 13½	5.10	5.80	15 x 23½	22.00	23.80
2½ x 9	2.20	2.65	7 x 13½	5.10	5.80	12 x 25	26.50	28.50
3 x 9	2.20	2.65	6 x 15	6.35	7.15	14 x 25	26.50	28.50
3½ x 9	2.20	2.65	7 x 15	6.35	7.15	15 x 25	26.50	28.50
2½ x 9¼	2.40	2.85	8 x 15	6.35	7.15	16 x 25	26.50	28.50
3 x 9¼	2.40	2.85	2½ x 16	7.45	8.45	14 x 27½	31.00	33.50
3½ x 9¼	2.40	2.85	3 x 16	7.45	8.45	15 x 27½	31.00	33.50
4 x 9¼	2.40	2.85	3½ x 16	7.45	8.45	16 x 27½	31.00	33.50
2 x 10	2.65	3.10	4 x 16	7.45	8.45	18 x 27½	31.00	33.50
2½ x 10	2.65	3.10	5 x 16	7.45	8.45	15 x 29½	36.00	39.00
3 x 10	2.65	3.10	6 x 16	7.45	8.45	16 x 29½	36.00	39.00
3½ x 10	2.65	3.10	7 x 16	7.45	8.45	18 x 29½	36.00	39.00
4 x 10	2.65	3.10	8 x 16	7.45	8.45	20 x 29½	36.00	39.00
4½ x 10	2.65	3.10	9 x 16	7.45	8.45	14 x 32	44.00	47.50
2 x 11	3.30	3.80	6 x 19	10.75	11.90	16 x 32	44.00	47.50
2½ x 11	3.30	3.80	7 x 19	10.75	11.90	18 x 32	44.00	47.50
3 x 11	3.30	3.80	8 x 19	10.75	11.90	20 x 32	44.00	47.50
3½ x 11	3.30	3.80	9 x 19	10.75	11.90			
4 x 11	3.30	3.80	10 x 19	10.75	11.90			

TAYLOR-FORBES COMPANY, LIMITED, GUELPH, ONT.

SIZES OF STANDARD CAST IRON FLANGED FITTINGS—REDUCING TEES

2½ x 2½ x 2	5 x 5 x 3	7 x 7 x 6	7 x 7 x 8	12 x 12 x 8
2½ x 2½ x 1½	5 x 5 x 2½	7 x 7 x 5	6 x 6 x 8	12 x 12 x 7
2 ½ x 2 x 1½	5 x 5 x 2	7 x 7 x 4	5 x 5 x 8	12 x 12 x 6
3 x 3 x 2½	5 x 5 x 1½	7 x 7 x 3½	9 x 9 x 8	12 x 12 x 5
3 x 3 x 2	5 x 5 x 1¼	7 x 7 x 3	9 x 9 x 7	12 x 12 x 4½
3 x 3 x 1½		7 x 7 x 2½	9 x 9 x 6	12 x 12 x 4
3 x 3 x 1¼	5 x 4 x 5	7 x 7 x 2	9 x 9 x 5	12 x 12 x 3
	5 x 3 x 5	7 x 6 x 7	9 x 9 x 4	12 x 12 x 2
	5 x 2½ x 5	7 x 5 x 7	9 x 9 x 3	12 x 10 x 12
3 x 2½ x 3	5 x 2 x 5	7 x 4 x 7	9 x 9 x 2½	
3 x 2½ x 2½	5 x 4 x 4	7 x 3 x 7	9 x 6 x 6	12 x 8 x 12
3 x 2½ x 2	5 x 4 x 3	7 x 6 x 6		12 x 6 x 12
3 x 2 x 2½	5 x 4 x 2½	7 x 6 x 5	10 x 10 x 9	12 x 4 x 12
3 x 2 x 3	5 x 4 x 2	6 x 6 x 7	10 x 10 x 8	12 x 12 x 10
2½ x 2½ x 3	5 x 3½ x 4	5 x 5 x 7	10 x 10 x 7	12 x 10 x 8
	5 x 3 x 3½		10 x 10 x 6	12 x 10 x 6
3½ x 3½ x 3	5 x 3 x 3	8 x 8 x 7	10 x 10 x 5	12 x 8 x 10
3½ x 3½ x 2½	4 x 4 x 5	8 x 8 x 6	10 x 10 x 4½	12 x 8 x 8
3½ x 3½ x 2		8 x 8 x 5	10 x 10 x 4	12 x 8 x 6
3½ x 2½ x 2½	6 x 6 x 5	8 x 8 x 4½	10 x 10 x 3½	12 x 6 x 8
	6 x 6 x 4½	8 x 8 x 4	10 x 10 x 3	10 x 10 x 12
4 x 4 x 3½	6 x 6 x 4	8 x 8 x 3½	10 x 10 x 2½	8 x 8 x 12
4 x 4 x 3	6 x 6 x 3½	8 x 8 x 3		
4 x 4 x 2½	6 x 6 x 3	8 x 8 x 2½	10 x 8 x 10	14 x 14 x 12
4 x 4 x 2	6 x 6 x 2½	8 x 8 x 2	10 x 7 x 10	14 x 14 x 10
4 x 4 x 1½	6 x 6 x 2		10 x 6 x 10	14 x 14 x 8
4 x 4 x 1¼	6 x 6 x 1½	8 x 7 x 8	10 x 5 x 10	14 x 14 x 7
4 x 3½ x 4		8 x 6 x 8	10 x 4 x 10	14 x 14 x 6
4 x 3 x 4	6 x 5 x 6	8 x 5 x 8	10 x 3 x 10	14 x 14 x 5
4 x 2½ x 4	6 x 4 x 6	8 x 4 x 8		14 x 12 x 14
4 x 2 x 4	6 x 3 x 6	8 x 3½ x 8	10 x 8 x 8	14 x 12 x 12
4 x 3 x 3	6 x 2½ x 6	8 x 3 x 8	10 x 8 x 7	14 x 10 x 10
4 x 3 x 2½	6 x 2 x 6	8 x 7 x 7	10 x 8 x 6	10 x 10 x 14
4 x 3 x 2	6 x 5 x 5	8 x 7 x 6	10 x 8 x 5	
4 x 2½ x 3	6 x 5 x 4	8 x 7 x 5	10 x 8 x 4	16 x 16 x 14
4 x 2½ x 2½	6 x 5 x 3	8 x 7 x 4	10 x 7 x 7	16 x 16 x 12
4 x 2 x 2	6 x 5 x 2½	8 x 6 x 6	10 x 6 x 8	16 x 16 x 10
3 x 3 x 4	6 x 4 x 5	8 x 6 x 5	10 x 6 x 6	16 x 16 x 8
	6 x 4 x 4	8 x 6 x 4	8 x 8 x 10	16 x 16 x 7
4½ x 4½ x 4	6 x 4 x 3	8 x 6 x 3	8 x 6 x 10	16 x 16 x 6
4½ x 4½ x 3	6 x 4 x 2½	8 x 5 x 7	6 x 6 x 10	
4½ x 4½ x 2½	5 x 5 x 6	8 x 5 x 6		
	5 x 4 x 6	8 x 5 x 5	12 x 12 x 10	16 x 12 x 12
5 x 5 x 4	5 x 4 x 6	8 x 4 x 6	12 x 12 x 9	12 x 12 x 16
5 x 5 x 3½	4 x 4 x 6	8 x 4 x 4		

REDUCING CROSSES

4 x 4 x 3 x 3	6 x 6 x 5 x 5	8 x 8 x 6 x 6	8 x 8 x 3 x 3	10 x 10 x 8 x 8
5 x 5 x 4 x 4	6 x 6 x 4 x 4	8 x 8 x 5 x 5	8 x 6 x 6 x 6	10 x 10 x 6 x 6
5 x 5 x 3 x 3	6 x 6 x 3 x 3	8 x 8 x 4 x 4	8 x 6 x 8 x 6	10 x 10 x 5 x 5
5 x 5 x 2½ x 2½				

REDUCING Y BRANCHES

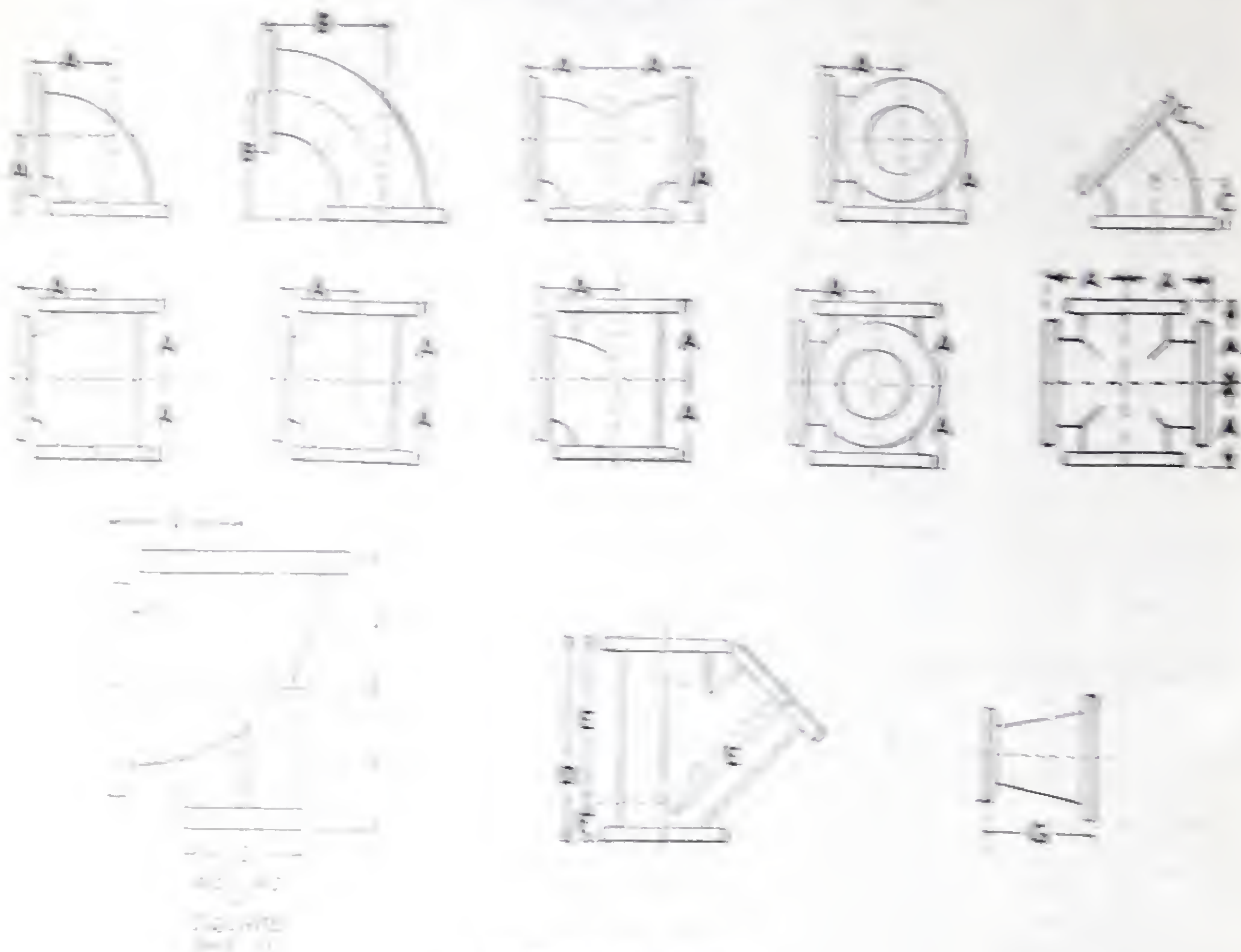
4 x 4 x 2½	6 x 6 x 3	8 x 8 x 6	8 x 8 x 3	10 x 10 x 6
6 x 6 x 4	6 x 6 x 2½	8 x 6 x 6	10 x 10 x 8	10 x 8 x 8

Sizes not listed above are special. [61]

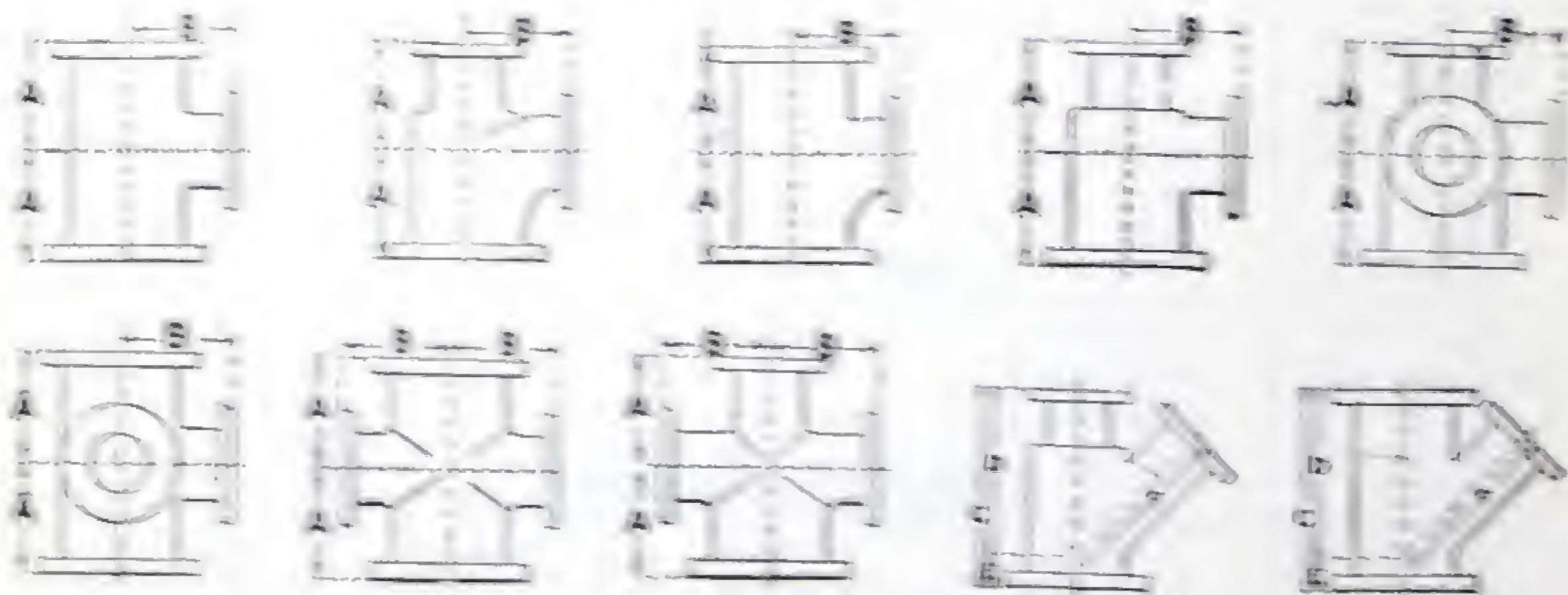
DIMENSION CHART

Straight and Reducing sizes of Standard Cast Iron Flanged Fittings.

STRAIGHT SIZES



REDUCING SIZES



DIMENSIONS OF STANDARD CAST IRON FLANGED FITTINGS

Size	A	B	C	D	E	F	G	W	Z
1	3½	5	1¾	7½	5¾	1¾			4
1¼	3¾	5½	2	8	6¼	1¾		4½	4
1½	4	6	2¼	9	7	2		4¾	4
2	4½	6½	2½	10½	8	2½		5	4½
2½	5	7	3	12	9½	2½		5½	4½
3	5½	7¾	3	13	10	3	6	5¾	5
3½	6	8½	3½	14½	11½	3	6½	6¼	5
4	6½	9	4	15	12	3	7	6½	6
4½	7	9½	4	15½	12½	3	7½	6¾	6
5	7½	10¼	4½	17	13½	3½	8	7	7
6	8	11½	5	18	14½	3½	9	7½	7
7	8½	12¾	5½	20½	16½	4	10	8¼	7
8	9	14	5½	22	17½	4½	11	8¾	9
9	10	15¼	6	24	19½	4½	11½	9½	9
10	11	16½	6½	25½	20½	5	12	10	9
12	12	19	7½	30	24½	5½	14	10½	11
14	14	21½	7½	33	27	6	16	13½	11
15	14½	22¾	8	34½	28½	6	17	14	11
16	15	24	8	36½	30	6½	18	14¾	11
18	16½	26½	8½	39	32	7	19	15½	13½
20	18	29	9½	43	35	8	20	16¾	13½
22	20	31½	10	46	37½	8½	22	17¾	13½
24	22	34	11	49½	40½	9	24	18¾	13½

TEMPLATES FOR DRILLING STANDARD CAST IRON FLANGED FITTINGS AND VALVES

Size Inches	Diameter of Flanges Inches	Thickness of Flanges Inches	Bolt Circle Inches	Size of Bolts Inches	Length of Bolts Inches	Number of Bolts
1	4	$\frac{7}{16}$	3	$\frac{7}{16}$	$1\frac{1}{2}$	4
$1\frac{1}{4}$	$4\frac{1}{2}$	$\frac{1}{2}$	$3\frac{3}{8}$	$\frac{7}{16}$	$1\frac{1}{2}$	4
$1\frac{1}{2}$	5	$\frac{9}{16}$	$3\frac{7}{8}$	$\frac{1}{2}$	$1\frac{3}{4}$	4
2	6	$\frac{5}{8}$	$4\frac{3}{4}$	$\frac{5}{8}$	2	4
$2\frac{1}{2}$	7	$1\frac{1}{16}$	$5\frac{1}{2}$	$\frac{5}{8}$	$2\frac{1}{4}$	4
3	$7\frac{1}{2}$	$\frac{3}{4}$	6	$\frac{5}{8}$	$2\frac{1}{4}$	4
$3\frac{1}{2}$	$8\frac{1}{2}$	$1\frac{3}{16}$	7	$\frac{5}{8}$	$2\frac{1}{2}$	4
4	9	$1\frac{5}{16}$	$7\frac{1}{2}$	$\frac{5}{8}$	$2\frac{3}{4}$	8
$4\frac{1}{2}$	$9\frac{1}{4}$	$1\frac{5}{16}$	$7\frac{3}{4}$	$\frac{3}{4}$	$2\frac{3}{4}$	8
5	10	$1\frac{5}{16}$	$8\frac{1}{2}$	$\frac{3}{4}$	$2\frac{3}{4}$	8
6	11	1	$9\frac{1}{2}$	$\frac{3}{4}$	3	8
7	$12\frac{1}{2}$	$1\frac{1}{16}$	$10\frac{3}{4}$	$\frac{3}{4}$	3	8
8	$13\frac{1}{2}$	$1\frac{1}{8}$	$11\frac{3}{4}$	$\frac{3}{4}$	$3\frac{1}{4}$	8
9	15	$1\frac{1}{8}$	$13\frac{1}{4}$	$\frac{3}{4}$	$3\frac{1}{4}$	12
10	16	$1\frac{3}{16}$	$14\frac{1}{4}$	$\frac{7}{8}$	$3\frac{1}{2}$	12
12	19	$1\frac{1}{4}$	17	$\frac{7}{8}$	$3\frac{1}{2}$	12
14	21	$1\frac{3}{8}$	$18\frac{3}{4}$	1	4	12
15	$22\frac{1}{4}$	$1\frac{3}{8}$	20	1	4	16
16	$23\frac{1}{2}$	$1\frac{7}{16}$	$21\frac{1}{4}$	1	4	16
18	25	$1\frac{9}{16}$	$22\frac{3}{4}$	$1\frac{1}{8}$	$4\frac{1}{2}$	16
20	$27\frac{1}{2}$	$1\frac{11}{16}$	25	$1\frac{1}{8}$	$4\frac{3}{4}$	20
22	$29\frac{1}{2}$	$1\frac{13}{16}$	$27\frac{1}{4}$	$1\frac{1}{4}$	5	20
24	32	$1\frac{7}{8}$	$29\frac{1}{2}$	$1\frac{1}{4}$	$5\frac{1}{4}$	20
26	$34\frac{1}{4}$	2	$31\frac{3}{4}$	$1\frac{1}{4}$	$5\frac{1}{2}$	24
28	$36\frac{1}{2}$	$2\frac{1}{16}$	34	$1\frac{1}{4}$	$5\frac{1}{2}$	28
30	$38\frac{3}{4}$	$2\frac{1}{8}$	36	$1\frac{3}{8}$	$5\frac{3}{4}$	28
32	$41\frac{3}{4}$	$2\frac{1}{4}$	$38\frac{1}{2}$	$1\frac{1}{2}$	$6\frac{1}{4}$	28
34	$43\frac{3}{4}$	$2\frac{5}{16}$	$40\frac{1}{2}$	$1\frac{1}{2}$	$6\frac{1}{2}$	32
36	46	$2\frac{3}{8}$	$42\frac{3}{4}$	$1\frac{1}{2}$	$6\frac{1}{2}$	32

SQUARE HEAD MACHINE BOLTS
PRICE PER 100

Length Under the Head Inches	Diam. ¼ Inch	Diam. ⅕ Inch	Diam. ⅜ Inch	Diam. 7/16 Inch	Diam. ½ Inch	Diam. 9/16 & 5/8 Inch	Diam. ¾ Inch	Diam. 7/8 Inch	Diam. 1 Inch	Diam. 1 1/8 Inch	Diam. 1 ¼ Inch
1½.....	\$ 1.70	\$ 2.00	\$ 2.40	\$ 3.00	\$ 3.70	\$ 5.50	\$ 7.70	\$10.50	\$15.10	\$22.50	\$30.00
2.....	1.80	2.15	2.60	3.25	4.00	5.90	8.25	11.20	16.00	23.70	31.50
2½.....	1.90	2.30	2.80	3.50	4.30	6.30	8.80	11.90	16.90	24.90	33.00
3.....	2.00	2.45	3.00	3.75	4.60	6.70	9.35	12.60	17.80	26.10	34.50
3½.....	2.10	2.60	3.20	4.00	4.90	7.10	9.90	13.30	18.70	27.30	36.00
4.....	2.20	2.75	3.40	4.25	5.20	7.50	10.45	14.00	19.60	28.50	37.50
4½.....	2.30	2.90	3.60	4.50	5.50	7.90	11.00	14.70	20.50	29.70	39.00
5.....	2.40	3.05	3.80	4.75	5.80	8.30	11.55	15.40	21.40	30.90	40.50
5½.....	2.50	3.20	4.00	5.00	6.10	8.70	12.10	16.10	22.30	32.10	42.00
6.....	2.60	3.35	4.20	5.25	6.40	9.10	12.65	16.80	23.20	33.30	43.50
6½.....	3.70	4.50	5.40	6.50	7.70	9.50	13.20	17.50	24.10	34.50	45.00
7.....	3.80	4.65	5.60	6.75	8.00	9.90	13.75	18.20	25.00	35.70	46.50
7½.....	3.90	4.80	5.80	7.00	8.30	10.30	14.30	18.90	25.90	36.90	48.00
8.....	4.00	4.95	6.00	7.25	8.60	10.70	14.85	19.60	26.80	38.10	49.50
9.....	4.20	5.25	6.40	7.75	9.20	11.50	15.95	21.00	28.60	40.50	52.50
10.....	4.40	5.55	6.80	8.25	9.80	12.30	17.05	22.40	30.40	42.90	55.50
11.....	4.60	5.85	7.20	8.75	10.40	13.10	18.15	23.80	32.20	45.30	58.50
12.....	4.80	6.15	7.60	9.25	11.00	13.90	19.25	25.20	34.00	47.70	61.50
13.....			8.00	9.75	11.60	14.70	20.35	26.60	35.80	50.10	64.50
14.....			8.40	10.25	12.20	15.50	21.45	28.00	37.60	52.50	67.50
15.....			8.80	10.75	12.80	16.30	22.55	29.40	39.40	54.90	70.50
16.....			9.20	11.25	13.40	17.10	23.65	30.80	41.20	57.30	73.50
17.....			9.60	11.75	14.00	17.90	24.75	32.20	43.00	59.70	76.50
18.....			10.00	12.25	14.60	18.70	25.85	33.60	44.80	62.10	79.50
19.....			10.40	12.75	15.20	19.50	26.95	35.00	46.60	64.50	82.50
20.....			10.80	13.25	15.80	20.30	28.05	36.40	48.40	66.90	85.50
21.....					16.40	21.10	29.15	37.80	50.20	69.30	88.50
22.....					17.00	21.90	30.25	39.20	52.00	71.70	91.50
23.....					17.60	22.70	31.35	40.60	53.80	74.10	94.50
24.....					18.20	23.50	32.45	42.00	55.60	76.50	97.50
25.....					18.80	24.30	33.55	43.40	57.40	78.90	100.50
26.....							34.65	44.80	59.20	81.30	103.50
27.....							35.75	46.20	61.00	83.70	106.50
28.....							36.85	47.60	62.80	86.10	109.50
29.....							37.95	49.00	64.60	88.50	112.50
30.....							39.05	50.40	66.40	90.90	115.50
Add per inch.....	\$ 0.20	\$ 0.30	\$ 0.40	\$ 0.50	\$ 0.60	\$ 0.80	\$ 1.10	\$ 1.40	\$ 1.80	\$ 2.40	\$ 3.00

Add 10% To List For Hexagon Nuts.

CAST IRON EXTRA HEAVY FLANGED FITTINGS

250 Pounds Working Pressure

ELBOWS



Fig. 263



Fig. 264

Fig. 263 90° Elbow

Size.....	Inches	2	2½	3	3½	4	4½	5	6	7	8
Faced only..	Each	4.50	4.75	5.15	6.10	6.75	8.25	9.35	11.40	15.75	18.00
Faced and Drilled..	Each	5.40	5.65	6.25	7.35	8.25	9.75	10.85	13.40	18.00	20.50
Size...	Inches	9	10	12	14	15	16	18	20	22	24
Faced only	Each	25.50	28.50	42.00	62.00	70.00	82.00	106.00	135.00	170.00	210.00
Faced and Drilled.	Each	28.85	32.50	46.50	67.50	77.00	90.00	115.00	145.00	183.00	225.00

Fig. 264 45° Elbow

Size ..	Inches	2	2½	3	3½	4	4½	5	6	7	8
Faced only	Each	5.00	5.25	5.65	6.75	7.50	9.00	10.35	12.50	16.50	19.00
Faced and Drilled ...	Each	5.90	6.15	6.75	8.00	9.00	10.50	11.85	14.50	18.75	21.50
Size..	Inches	9	10	12	14	15	16	18	20	22	24
Faced only	Each	26.75	30.00	44.00	62.00	70.00	82.00	106.00	135.00	170.00	210.00
Faced and Drilled	Each	30.10	34.00	48.50	67.50	77.00	90.00	115.00	145.00	183.00	225.00



Fig. 269 Long Radius Elbow

Size.....	Inches	2	2½	3	3½	4	4½	5	6	7	8
Faced Only.....	Each	7.50	8.00	8.60	10.25	11.25	13.75	15.50	19.00	26.50	30.00
Faced and Drilled.....	Each	8.85	9.35	10.25	12.15	13.50	16.00	17.75	22.00	29.85	33.75
Size.....	Inches	9	10	12	14	15	16	18	20	22	24
Faced only.....	Each	42.50	47.75	70.00	103.50	117.00	137.00	177.00	225.00	285.00	350.00
Faced and Drilled.....	Each	47.50	53.75	76.75	111.75	127.00	149.00	191.00	240.00	305.00	373.00

CAST IRON EXTRA HEAVY FLANGED FITTINGS

250 Pounds Working Pressure

BASE ELBOWS



Fig.270

Size	Inches	4	4½	5	6	7	8
Faced only except Base Flange.....	Each	13.50	16.50	18.75	22.75	31.50	36.00
Faced and Drilled except Base Flange.....	Each	15.00	18.00	20.25	24.75	33.75	38.50
Facing and Drilling Base Flange.....	Each	4.50	4.50	5.25	5.25	5.25	7.50

Size	Inches	9	10	12	14	15	16
Faced only except Base Flange.....	Each	51.00	57.00	84.00	105.00	120.00	135.00
Faced and Drilled except Base Flange.....	Each	54.35	61.00	88.50	110.50	127.00	143.00
Facing and Drilling Base Flange.....	Each	7.50	7.50	11.00	11.00	11.00	11.00

TAPER REDUCING ELBOWS



Fig. 271

Size	Faced Only	Faced and Drilled	Size	Faced only	Faced and Drilled
2 x 1¼	9.00	9.90	7 x 5	31.50	33.75
2½ x 1½	9.50	10.40	7 x 6	31.50	33.75
2½ x 2	9.50	10.40	8 x 4	36.00	38.50
3 x 1½	10.25	11.35	8 x 5	36.00	38.50
3 x 2	10.25	11.35	8 x 6	36.00	38.50
3 x 2½	10.25	11.35	8 x 7	36.00	38.50
3½ x 2½	12.25	13.50	10 x 5	57.00	61.00
3½ x 3	12.25	13.50	10 x 6	57.00	61.00
4 x 2	13.50	15.00	10 x 8	57.00	61.00
4 x 2½	13.50	15.00	12 x 7	84.00	88.50
4 x 3	13.50	15.00	12 x 8	84.00	88.50
5 x 2½	18.75	20.25	12 x 10	84.00	88.50
5 x 3	18.75	20.25	14 x 10	105.00	110.50
5 x 4	18.75	20.25	14 x 12	105.00	110.50
6 x 3	22.75	24.75	15 x 10	120.00	127.00
6 x 3½	22.75	24.75	15 x 12	120.00	127.00
6 x 4	22.75	24.75	16 x 10	135.00	143.00
6 x 5	22.75	24.75	16 x 12	135.00	143.00
7 x 4	31.50	33.75	16 x 14	135.00	143.00

Dimensions Page 78. Drilling Templates Page 79.
Extra for Galvanizing Page 76.

CAST IRON EXTRA HEAVY FLANGED FITTINGS

250 Pounds Working Pressure

LATERALS



Fig. 272

Fig. 272 Straight

Size	Inches	2	2½	3	3½	4	4½	5	6	7	8
Faced only	Each	10.00	10.50	11.50	13.50	15.00	18.00	20.50	25.00	35.00	40.00
Faced and Drilled	Each	11.80	12.30	13.75	16.00	18.00	21.00	23.50	29.00	39.50	45.00
Size	Inches	9	10	12	14	15	16	18	20	22	24
Faced only	Each	56.00	63.00	92.00	136.00	155.00	180.00	235.00	300.00	375.00	465.00
Faced and Drilled	Each	62.75	71.00	101.00	147.00	169.00	196.00	253.00	320.00	401.00	495.00

Fig. 272 Reducing.

Size	Inches	4	4½	5	6	7	8	9	10	12	14
Faced only	Each	17.00	21.00	23.50	29.00	40.00	46.00	65.00	72.00	106.00	158.00
Faced and Drilled	Each	20.00	24.00	26.50	33.00	44.50	51.00	71.75	80.00	115.00	169.00
Size	Inches	15	16	18							
Faced only	Each	177.00	207.00	270.00							
Faced and Drilled	Each	191.00	223.00	288.00							

For List of Standard sizes see Page 75.

ELBOWS WITH SIDE
OUTLET

Fig. 273

Fig. 273 Straight

Size	Inches	4	5	6	7	8	10	12	14	16
Faced only	Each	35.75	37.75	42.00	51.75	61.25	89.00	113.25	146.75	168.00
Faced and Drilled	Each	38.00	40.00	45.00	55.00	65.00	95.00	120.00	155.00	180.00

Fig 273 Reducing

Size	Inches	4	5	6	7	8	10	12	14	16
Faced only	Each	39.75	41.75	47.00	56.75	67.25	99.00	123.25	161.75	183.00
Faced and Drilled	Each	42.00	44.00	50.00	60.00	71.00	105.00	130.00	170.00	195.00

Dimensions, Page 78. Drilling Templates Page 79. Extra for Galvanizing Page 76.

CAST IRON EXTRA HEAVY FLANGED FITTINGS

TEES 250 Pounds Working Pressure CROSSES



Fig. 274



Fig. 275

Fig. 274. Tees, Straight

Size.....Inches	2	2½	3	3½	4	4½	5	6	7	8
Faced only.....Each	6.50	6.90	7.50	8.90	9.75	12.00	13.50	16.50	23.00	26.00
Faced and Drilled.....Each	7.85	8.25	9.15	10.80	12.00	14.25	15.75	19.50	26.35	29.75
Size.....Inches	9	10	12	14	15	16	18	20	22	24
Faced only.....Each	37.00	41.50	61.00	90.00	102.00	119.00	154.00	195.00	247.00	305.00
Faced and Drilled.....Each	42.00	47.50	67.75	98.25	112.00	131.00	168.00	210.00	267.00	328.00

Fig. 274. Tees, Reducing

Size.....Inches	2	2½	3	3½	4	4½	5	6	7	8
Faced only.....Each	7.50	8.00	8.60	10.25	11.25	13.75	15.50	19.00	26.50	30.00
Faced and Drilled.....Each	8.85	9.35	10.25	12.15	13.50	16.00	17.75	22.00	29.85	33.75
Size.....Inches	9	10	12	14	15	16	18	20	22	24
Faced only.....Each	42.50	47.75	70.00	103.50	117.00	137.00	177.00	225.00	285.00	350.00
Faced and Drilled.....Each	47.50	53.75	76.75	111.75	127.00	149.00	191.00	240.00	305.00	373.00

Fig. 275. Crosses, Straight.

Size.....Inches	2	2½	3	3½	4	4½	5	6	7	8
Faced only.....Each	10.00	10.50	11.50	13.50	15.00	18.00	20.50	25.00	35.00	40.00
Faced and Drilled.....Each	11.80	12.30	13.75	16.00	18.00	21.00	23.50	29.00	39.50	45.00
Size.....Inches	9	10	12	14	15	16	18	20	22	24
Faced only.....Each	56.00	63.00	92.00	136.00	155.00	180.00	235.00	300.00	375.00	465.00
Faced and Drilled.....Each	62.75	71.00	101.00	147.00	169.00	196.00	253.00	320.00	401.00	495.00

Fig. 275. Crosses, Reducing

Size.....Inches	2	2½	3	3½	4	4½	5	6	7	8
Faced only.....Each	11.50	12.00	13.25	15.50	17.00	21.00	23.50	29.00	40.00	46.00
Faced and Drilled.....Each	13.30	13.80	15.50	18.00	20.00	24.00	26.50	33.00	44.50	51.00
Size.....Inches	9	10	12	14	15	16	18	20	22	24
Faced only.....Each	65.00	72.00	106.00	158.00	177.00	207.00	270.00	345.00	430.00	535.00
Faced and Drilled.....Each	71.50	80.00	115.00	169.00	191.00	223.00	288.00	365.00	456.00	565.00

Dimensions Page 78. Drilling Templates Page 79. Extra for Galvanizing Page 76.
For List of Standard sizes see Page 75.

CAST IRON EXTRA HEAVY FLANGED FITTINGS

250 Pounds Working Pressure

TAPER REDUCERS



Fig. 276

Size, Inches	Faced Each	Faced and Drilled Each	Size, Inches	Faced Each	Faced and Drilled Each
2½ x 2	9.50	10.40	12 x 5	84.00	88.50
3 x 2	10.25	11.35	12 x 6	84.00	88.50
3½ x 2½	12.25	13.50	12 x 8	84.00	88.50
4 x 2	13.50	15.00	12 x 10	84.00	88.50
4 x 2½	13.50	15.00	14 x 6	105.00	110.50
4 x 3	13.50	15.00	14 x 8	105.00	110.50
5 x 2	18.75	20.25	14 x 10	105.00	110.50
5 x 2½	18.75	20.25	14 x 12	105.00	110.50
5 x 3	18.75	20.25	15 x 8	120.00	127.00
5 x 4	18.75	20.25	15 x 10	120.00	127.00
6 x 3	22.75	24.75	15 x 12	120.00	127.00
6 x 3½	22.75	24.75	15 x 14	120.00	127.00
6 x 4	22.75	24.75	16 x 8	135.00	143.00
6 x 5	22.75	24.75	16 x 10	135.00	143.00
7 x 3	31.50	33.75	16 x 12	135.00	143.00
7 x 4	31.50	33.75	16 x 14	135.00	143.00
7 x 5	31.50	33.75	18 x 10	157.00	166.00
7 x 6	31.50	33.75	18 x 12	157.00	166.00
8 x 3	36.00	38.50	18 x 14	157.00	166.00
8 x 4	36.00	38.50	18 x 16	157.00	166.00
8 x 5	36.00	38.50	20 x 12	180.00	190.00
8 x 6	36.00	38.50	20 x 14	180.00	190.00
10 x 4	57.00	61.00	20 x 16	180.00	190.00
10 x 5	57.00	61.00	20 x 18	180.00	190.00
10 x 6	57.00	61.00			
10 x 8	57.00	61.00			

Dimensions, page 78. Drilling Templates 79.



Fig. 277

ECCENTRIC TAPER REDUCERS

Eccentric Taper Reducers are not carried in stock, but are furnished to order.

Prices on application.

CAST IRON EXTRA HEAVY FLANGED FITTINGS

250 Pounds Working Pressure
LONG SWEEP ELBOWS



Fig. 278

Size.....Inches	2	2½	3	3½	4	4½	5	6
Faced only.....Each	7.50	8.00	8.60	10.25	11.25	13.75	15.50	19.00
Faced and Drilled.....Each	8.85	9.35	10.25	12.15	13.50	16.00	17.75	22.00
Size.....Inches	7	8	9	10	12	14	15	16
Faced only.....Each	26.50	30.00	42.50	47.75	70.00	103.50	117.00	137.00
Faced and Drilled.....Each	29.85	33.75	47.50	53.75	76.75	111.75	127.00	149.00

DOUBLE BRANCH ELBOWS



Fig. 279

Fig. 279 Straight

Size.....Inches	4	5	6	7	8	10	12	14	16
Faced only.....Each	35.75	42.75	49.50	56.50	66.25	84.00	108.25	141.75	168.00
Faced and Drilled.....Each	38.00	45.00	52.50	60.00	70.00	90.00	115.00	150.00	180.00

Fig. 279 Reducing

Size.....Inches	4	5	6	7	8	10	12	14	16
Faced only.....Each	39.75	47.75	54.50	62.50	73.75	94.00	118.25	156.75	188.00
Faced and Drilled.....Each	42.00	50.00	57.50	66.00	77.50	100.00	125.00	165.00	200.00

Lists given for Reducing sizes are for Fittings Reducing on the Branches, with Branches same size. If wanted with Branches different sizes or Reducing on inlet they can be made to order at Special Prices.

Dimensions Page 78. Drilling Templates Page 79. Extra for Galvanizing Page 76.

SINGLE SWEEP TEES

DOUBLE SWEEP TEES



Fig. 280

CAST IRON EXTRA HEAVY
FLANGED FITTINGS

250 Pounds Working Pressure



Fig. 281

Figs. 280 and 281 Straight

Size	Inches	2	2½	3	3½	4	4½	5	6	7	8
Faced only	Each	7.50	8.00	8.60	10.25	11.25	13.75	15.50	19.00	26.50	30.00
Faced and Drilled	Each	8.85	9.35	10.25	12.15	13.50	16.00	17.75	22.00	29.85	33.75
Size	Inches	9	10	12	14	15	16	18	20	22	24
Faced only	Each	42.50	47.75	70.00	103.50	117.00	137.00	177.00	225.00	285.00	350.00
Faced and Drilled	Each	47.50	53.75	76.75	111.75	127.00	149.00	191.00	240.00	305.00	373.00

Figs. 280 and 281 Reducing

Size	Inches	2½	3	3½	4	4½	5	6	7	8	9
Faced only	Each	9.15	9.90	11.75	13.00	15.75	17.85	22.00	30.50	34.50	49.00
Faced and Drilled	Each	10.50	11.55	13.65	15.25	18.00	20.10	25.00	33.85	38.25	54.00
Size	Inches	10	12	14	15	16	18	20	22	24	
Faced only	Each	55.00	80.00	119.00	135.00	158.00	204.00	260.00	327.00	402.00	
Faced and Drilled	Each	61.00	86.75	127.25	145.00	170.00	218.00	275.00	347.00	425.00	

TEES WITH SIDE OUTLET

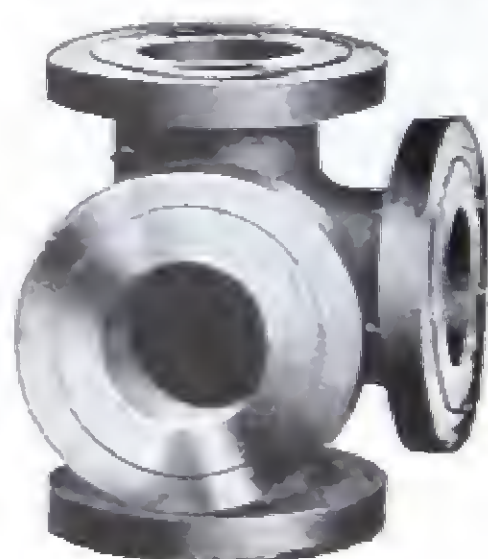


Fig. 282

Fig. 282 Straight

Size	Inches	4	5	6	7	8	10	12	14	16
Faced only	Each	42.00	47.00	53.50	63.00	72.50	102.00	131.00	159.00	184.00
Faced and Drilled	Each	45.00	50.00	57.50	67.50	77.50	110.00	140.00	170.00	200.00

Fig. 282 Reducing

Size	Inches	4	5	6	7	8	10	12	14	16
Faced only	Each	47.00	52.00	59.00	70.50	80.00	112.00	146.00	174.00	204.00
Faced and Drilled	Each	50.00	55.00	63.00	75.00	85.00	120.00	155.00	185.00	220.00

Single sweep Tees are not made with side Openings Larger than the Run.

Double Sweep Tees are made Reducing on the Run to order only.

Drilling Templates Page 79. Dimensions Page 78. Extra for Galvanizing Page 76.

CAST IRON EXTRA HEAVY COMPANION FLANGES
250 Pounds Working Pressure



Fig. 283

Size Inches	Faced Each	Faced and Drilled Each	Size Inches	Faced Each	Faced and Drilled Each
1 x 4½	.95	1.30	7 x 14	4.40	5.30
1¼ x 5	1.00	1.35	8 x 15	5.10	6.15
1½ x 6	1.10	1.45	9 x 16¼	6.30	7.50
2 x 6½	1.25	1.60	10 x 17½	7.40	8.90
2½ x 7½	1.40	1.75	12 x 20½	10.75	12.50
3 x 8¼	1.60	2.05	14 x 23	15.00	17.00
3½ x 9	2.00	2.55	15 x 24½	19.00	21.50
4 x 10	2.25	2.95	16 x 25½	22.25	25.00
4½ x 10½	2.40	3.10	18 x 28	26.00	29.00
5 x 11	2.65	3.35	20 x 30½	31.00	35.00
6 x 12½	3.30	4.05	22 x 33	36.00	41.00
			24 x 36	45.00	50.00

CAST IRON EXTRA HEAVY BLIND FLANGES
250 Pounds Working Pressure

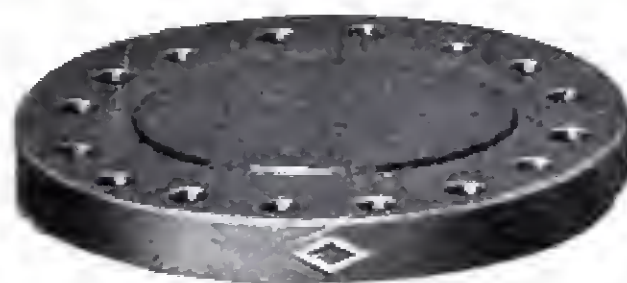


Fig. 284

Size Inches	Faced Each	Faced and Drilled Each	Size Inches	Faced Each	Faced and Drilled Each
1½ x 6	1.65	2.00	9 x 16¼	9.50	10.70
2 x 6½	1.90	2.25	10 x 17½	11.00	12.50
2½ x 7½	2.10	2.45	12 x 20½	16.00	17.75
3 x 8¼	2.40	2.85	14 x 23	22.50	24.50
3½ x 9	3.00	3.55	15 x 24½	28.50	31.00
4 x 10	3.35	4.05	16 x 25½	33.50	36.25
4½ x 10½	3.60	4.30	18 x 28	39.00	42.00
5 x 11	4.00	4.70	20 x 30½	46.00	50.00
6 x 12½	5.00	5.75	22 x 33	54.00	59.00
7 x 14	6.60	7.50	24 x 36	67.00	72.00
8 x 15	7.65	8.70			

CAST IRON EXTRA HEAVY REDUCING COMPANION FLANGES

250 Pounds Working Pressure



Fig. 285

Size Inches	Faced Each	Faced and Drilled Each	Size Inches	Faced Each	Faced and Drilled Each	Size Inches	Faced Each	Faced and Drilled Each
1¼ x 6	1.80	2.15	3 x 12½	5.50	6.25	10 x 20½	17.50	19.25
1½ x 6½	2.10	2.45	4 x 12½	5.50	6.25	8 x 23	25.00	27.00
1½ x 7½	2.30	2.65	4½ x 12½	5.50	6.25	9 x 23	25.00	27.00
2 x 7½	2.30	2.65	5 x 12½	5.50	6.25	10 x 23	25.00	27.00
1½ x 8¼	2.65	3.10	4½ x 14	7.25	8.15	12 x 23	25.00	27.00
2 x 8¼	2.65	3.10	5 x 14	7.25	8.15	8 x 24½	31.50	34.00
2½ x 8¼	2.65	3.10	6 x 14	7.25	8.15	10 x 24½	31.50	34.00
2 x 9	3.30	3.85	3 x 15	8.40	9.45	12 x 24½	31.50	34.00
2½ x 9	3.30	3.85	3½ x 15	8.40	9.45	14 x 24½	31.50	34.00
3 x 9	3.30	3.85	4 x 15	8.40	9.45	10 x 25½	37.00	39.75
2 x 10	3.70	4.40	5 x 15	8.40	9.45	12 x 25½	37.00	39.75
2½ x 10	3.70	4.40	6 x 15	8.40	9.45	14 x 25½	37.00	39.75
3 x 10	3.70	4.40	7 x 15	8.40	9.45	15 x 25½	37.00	39.75
3½ x 10	3.70	4.40	4 x 16¼	10.50	11.70	12 x 28	43.00	46.00
2 x 10½	4.00	4.70	5 x 16¼	10.50	11.70	14 x 28	43.00	46.00
2½ x 10½	4.00	4.70	6 x 16¼	10.50	11.70	15 x 28	43.00	46.00
3 x 10½	4.00	4.70	7 x 16¼	10.50	11.70	16 x 28	43.00	46.00
3½ x 10½	4.00	4.70	8 x 16¼	10.50	11.70	14 x 30½	51.00	55.00
4 x 10½	4.00	4.70	5 x 17½	12.00	13.50	15 x 30½	51.00	55.00
2 x 11	4.40	5.10	6 x 17½	12.00	13.50	16 x 30½	51.00	55.00
2½ x 11	4.40	5.10	7 x 17½	12.00	13.50	18 x 30½	51.00	55.00
3 x 11	4.40	5.10	8 x 17½	12.00	13.50	16 x 33	60.00	65.00
3½ x 11	4.40	5.10	9 x 17½	12.00	13.50	18 x 33	60.00	65.00
4 x 11	4.40	5.10	6 x 20½	17.50	19.25	20 x 33	60.00	65.00
4½ x 11	4.40	5.10	7 x 20½	17.50	19.25	18 x 36	74.00	79.00
2 x 12½	5.50	6.25	8 x 20½	17.50	19.25	20 x 36	74.00	79.00
2½ x 12½	5.50	6.25	9 x 20½	17.50	19.25			

Drilling Templates Page 79. Extra for Galvanizing Page 76.

LIST OF SIZES OF STANDARD CAST IRON EXTRA HEAVY
FLANGED FITTINGS

REDUCING TEES

2½ x 2½ x 2	5 x 5 x 3	7 x 7 x 2	10 x 8 x 10
2½ x 2½ x 1½	5 x 5 x 2½	7 x 6 x 7	10 x 6 x 10
2½ x 2½ x 1¼	5 x 5 x 2	7 x 5 x 5	10 x 8 x 6
2½ x 2 x 2	5 x 5 x 1½	6 x 6 x 7	10 x 8 x 5
3 x 3 x 2½	5 x 4 x 5	8 x 8 x 7	10 x 6 x 8
3 x 3 x 2	5 x 3 x 5	8 x 8 x 6	10 x 6 x 6
3 x 3 x 1½	5 x 2½ x 5	8 x 8 x 5	8 x 8 x 10
3 x 3 x 1¼	5 x 4 x 4	8 x 8 x 4½	7 x 7 x 10
3 x 3 x 1	5 x 4 x 3	8 x 8 x 4	12 x 12 x 10
3 x 2½ x 3	5 x 4 x 2½	8 x 8 x 3½	12 x 12 x 9
3 x 2 x 3	5 x 3 x 4	8 x 8 x 3	12 x 12 x 8
3 x 1½ x 3	5 x 3 x 3	8 x 8 x 2½	12 x 12 x 7
3 x 1¼ x 3	4 x 4 x 5	8 x 8 x 2	12 x 12 x 6
3 x 2½ x 2½	6 x 6 x 5	8 x 6 x 8	12 x 12 x 5
3 x 2 x 2	6 x 6 x 4½	8 x 4 x 8	12 x 12 x 4
2 x 2 x 3	6 x 6 x 4	8 x 3 x 8	12 x 12 x 3
3½ x 3½ x 2½	6 x 6 x 3½	8 x 7 x 6	12 x 12 x 2½
3½ x 3½ x 3	6 x 6 x 3	8 x 7 x 5	12 x 10 x 12
3½ x 2½ x 3½	6 x 6 x 2½	8 x 6 x 7	12 x 8 x 12
4 x 4 x 3½	6 x 6 x 2	8 x 6 x 6	12 x 10 x 10
4 x 4 x 2½	6 x 5 x 6	8 x 6 x 5	12 x 10 x 8
4 x 4 x 2	6 x 4 x 6	8 x 6 x 4	12 x 10 x 6
4 x 4 x 1½	6 x 3 x 6	8 x 5 x 6	12 x 8 x 8
4 x 3 x 4	6 x 2½ x 6	8 x 5 x 5	12 x 8 x 6
4 x 2½ x 4	6 x 5 x 5	8 x 4 x 6	10 x 10 x 12
4 x 2 x 4	6 x 5 x 4	8 x 4 x 4	8 x 8 x 12
4 x 3 x 3	6 x 5 x 3	6 x 6 x 8	14 x 14 x 12
4 x 3 x 2	6 x 5 x 2½	5 x 5 x 8	14 x 14 x 10
4 x 3 x 1½	6 x 5 x 2	9 x 9 x 6	14 x 14 x 8
4 x 2½ x 2½	6 x 4 x 5	9 x 9 x 5	14 x 14 x 7
4 x 2 x 3	6 x 4 x 4	10 x 10 x 8	14 x 14 x 6
3 x 3 x 4	6 x 4 x 3	10 x 10 x 7	14 x 14 x 5
2½ x 2½ x 4	6 x 3 x 3	10 x 10 x 6	14 x 12 x 8
4½ x 4½ x 3	5 x 5 x 6	10 x 10 x 5	16 x 16 x 10
4½ x 4½ x 2	4½ x 4½ x 6	10 x 10 x 4½	16 x 16 x 8
4½ x 4 x 4½	4 x 4 x 6	10 x 10 x 4	16 x 16 x 7
5 x 5 x 4	7 x 7 x 6	10 x 10 x 3½	16 x 16 x 6
5 x 5 x 3½	7 x 7 x 5	10 x 10 x 3	
	7 x 7 x 4	10 x 10 x 2	
	7 x 7 x 3		

REDUCING CROSSES

3 x 3 x 2½ x 2½	6 x 6 x 3 x 3	8 x 8 x 5 x 5
4 x 4 x 2½ x 2½	8 x 8 x 6 x 6	8 x 8 x 4 x 4
6 x 6 x 4 x 4		

REDUCING Y BRANCHES

4 x 4 x 2½	6 x 6 x 2½
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Sizes not Listed Above are Special.

EXTRA PRICE FOR GALVANIZING FLANGED FITTINGS AND FLANGES

STANDARD

Size	Elbows, Taper Reducers	Tees, Base Elbows, Long Radius Elbows	Crosses Y. Bends	Companion Flanges	Reducing Companion Flanges Blind Flanges	
Inches	Extra, Each	Extra, Each	Extra, Each	Extra, Each	Diam. In.	Extra, Each
1¼	2.40	3.60	4.80	.60		
1½	2.40	3.60	4.80	.60		
2	2.40	3.60	4.80	.70	6	1.00
2½	2.50	3.75	5.00	.75	7	1.10
3	2.75	4.15	5.50	.85	7½	1.25
3½	3.25	4.90	6.50	1.00	8½	1.50
4	3.65	5.50	7.25	1.20	9	1.80
4½	4.35	6.50	8.75	1.25	9¼	1.90
5	4.85	7.25	9.75	1.35	10	2.00
6	6.00	9.00	12.00	1.65	11	2.50
7	8.00	12.00	16.00	2.15	12½	3.25
8	9.00	13.50	18.00	2.50	13½	3.75
9	13.00	19.50	26.00	3.00	15	4.50
10	14.50	22.00	29.00	3.75	16	5.75
12	21.00	31.00	42.00	5.00	19	7.50
14	30.00	45.00	60.00	7.00	21	10.50
15	35.00	52.50	70.00	9.00	22¼	13.50
16	40.00	60.00	80.00	10.50	23½	16.00

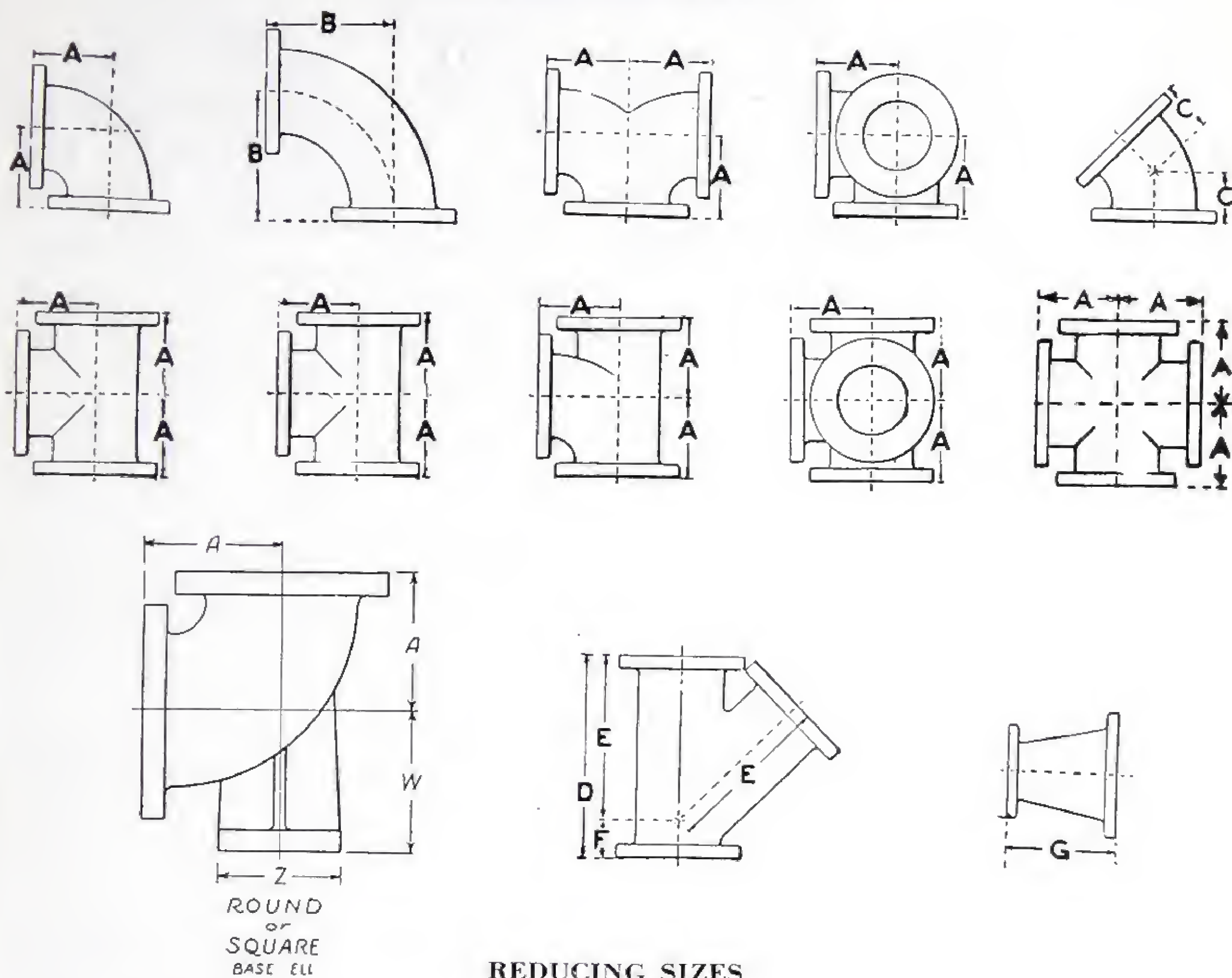
EXTRA HEAVY

Inches	Extra, Each	Extra, Each	Extra, Each	Extra, Each	Diam. In.	Extra, Each
1¼	3.00	4.50	6.00	.85		
1½	3.00	4.50	6.00	.85		
2	3.00	4.50	6.00	1.00	6	1.25
2½	3.10	4.65	6.25	1.05	6½	1.50
3	3.50	5.25	7.00	1.15	7½	1.60
3½	4.10	6.15	8.25	1.40	8¼	1.75
4	4.50	6.75	9.00	1.65	9	2.10
4½	5.50	8.25	11.00	1.75	10	2.50
5	6.00	9.00	12.00	1.90	10½	2.65
6	7.50	11.25	15.00	2.30	11	2.85
7	10.00	15.00	20.00	3.00	12½	3.50
8	11.25	16.75	22.50	3.50	14	4.50
9	16.00	24.00	32.00	4.15	15	5.25
10	18.00	27.00	36.00	5.25	16¼	6.25
12	26.00	39.00	52.00	7.00	17½	8.00
14	37.50	56.00	75.00	10.00	20½	10.50
15	44.00	66.00	88.00	12.50	23	15.00
16	50.00	75.00	100.00	15.00	24½	19.00
					25½	22.50

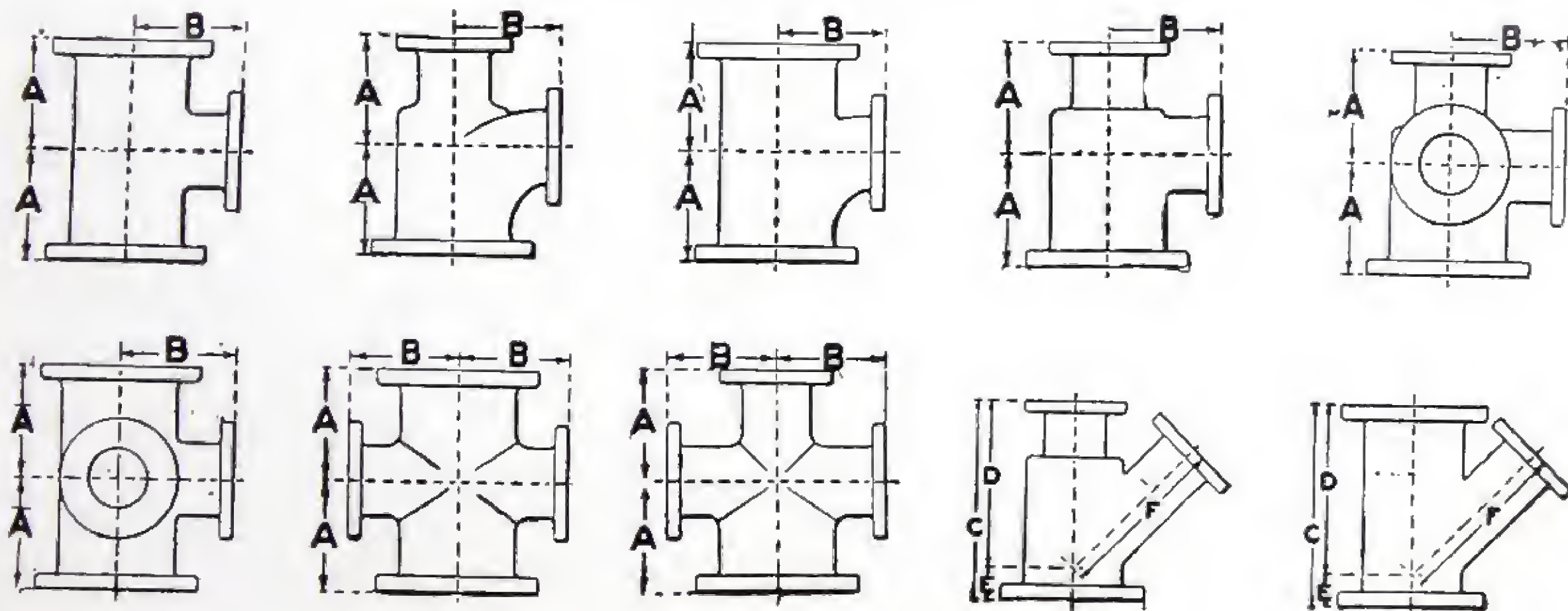
DIMENSION CHART

Straight and Reducing sizes of Standard Cast Iron Flanged Fittings.

STRAIGHT SIZES



REDUCING SIZES



**DIMENSIONS OF EXTRA HEAVY CAST IRON
FLANGED FITTINGS**

Size	A	B	C	D	E	F	G	W	Z
1	4	5	2	8½	6½	2			
1¼	4¼	5½	2½	9½	7¼	2¼		4½	4½
1½	4½	6	2¾	11	8½	2½		5	4½
2	5	6½	3	11½	9	2½		5½	5
2½	5½	7	3½	13	10½	2½		6	5
3	6	7¾	3½	14	11	3	6	6¼	6
3½	6½	8½	4	15½	12½	3	6½	6¾	6
4	7	9	4½	16½	13½	3	7	7	6½
4½	7½	9½	4½	18	14½	3½	7½	7¼	6½
5	8	10¼	5	18½	15	3½	8	7½	7½
6	8½	11½	5½	21½	17½	4	9	8	7½
7	9	12¾	6	23½	19	4½	10	8¾	7½
8	10	14	6	25½	20½	5	11	9¼	10
9	10½	15¼	6½	27½	22½	5	11½	10	10
10	11½	16½	7	29½	24	5½	12	10½	10
12	13	19	8	33½	27½	6	14	11	12½
14	15	21½	8½	37½	31	6½	16	14	12½
15	15½	22¾	9	39½	33	6½	17	14½	12½
16	16½	24	9½	42	34½	7½	18	15¼	12½
18	18	26½	10	45½	37½	8	19	15½	15
20	19½	29	10½	49	40½	8½	20	16¾	15
22	20½	31½	11	53	43½	9½	22	17¾	17½
24	22½	34	12	57½	47½	10	24	18¾	17½

TEMPLATES FOR DRILLING EXTRA HEAVY CAST IRON FLANGED FITTINGS AND VALVES

Size Inches	Diameter of Flanges Inches	Thickness of Flanges Inches	Bolt Circle Inches	Size of Bolts Inches	Length of Bolts Inches	Number of Bolts
1	4½	11/16	3¼	½	2	4
1¼	5	¾	3¾	½	2¼	4
1½	6	13/16	4½	5/8	2½	4
2	6½	7/8	5	5/8	2½	4
2½	7½	1	5⅞	¾	3	4
3	8¼	1⅛	6⅝	¾	3¼	8
3½	9	1¾	7¼	¾	3¼	8
4	10	1½	7⅞	¾	3½	8
4½	10½	1⅝	8½	¾	3½	8
5	11	1⅜	9¼	¾	3¾	8
6	12½	1⅞	10⅝	¾	3¾	12
7	14	1½	11⅞	7/8	4	12
8	15	1⅝	13	7/8	4¼	12
9	16¼	1¾	14	1	4¾	12
10	17½	1⅞	15¼	1	5	16
12	20½	2	17¾	1⅛	5¼	16
14	23	2⅛	20¼	1⅛	5½	20
15	24½	2⅜	21½	1¼	5¾	20
16	25½	2¼	22½	1¼	6	20
18	28	2⅜	24¾	1¼	6¼	24
20	30½	2½	27	1⅜	6½	24
22	33	2⅝	29¼	1½	7	24
24	36	2¾	32	1⅝	7½	24
26	38¼	2⅝	34½	1⅝	7¾	28
28	40¾	2⅝	37	1⅝	8	28
30	43	3	39¼	1¾	8¼	28
32	45¼	3⅛	41½	1⅞	8½	28
34	47½	3¼	43½	1⅞	9	28
36	50	3⅜	46	1⅞	9¼	32

MALLEABLE IRON FITTINGS

ELBOWS

Straight and Reducing



Fig. 286 Plain



Fig. 287 Beaded

Figs. 286 and 287 STRAIGHT ELBOWS

Size	Inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$
Right Hand Black	Each	10	08	13	18	.19	.32	.55	.68
Right Hand Galv	Each	13	12	19	26	.31	.53	.89	1.10
Right and Left Black	Each		16	24	18	.30	.56	.55	.69
Right and Left Galv	Each				27	.45	.75	.90	1.10
Size	Inches	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4	4 $\frac{1}{2}$	5	6
Right Hand Black	Each	1.05	2.10	3.10	4.35	5.20	7.20	8.50	14.95
Right Hand Galv	Each	1.70	3.40	5.10	7.10	8.45	11.75	13.85	24.40
Right and Left Black	Each	1.05							
Right and Left Galv	Each	1.70							

Figs. 286 and 287 REDUCING ELBOWS

Size	Inches	$\frac{1}{4} \times \frac{1}{8}$	$\frac{1}{2} \times \frac{1}{8}$	$\frac{3}{4} \times \frac{1}{4}$	$1 \times \frac{1}{4}$	$1 \frac{1}{2} \times \frac{3}{8}$	$2 \times \frac{1}{2}$	$2 \frac{1}{2} \times \frac{1}{2}$	$3 \times \frac{1}{2}$	$4 \times \frac{1}{2}$
Black	Each	13	21	11	19	.18	.22	.26	.40	.42
Galv	Each	.17	28	17	28	.26	.33	.39	.59	.63
Size	Inches	1 $\frac{1}{4} \times \frac{1}{4}$	1 $\frac{1}{2} \times \frac{1}{4}$	1 $\frac{1}{4} \times 1$	1 $\frac{1}{2} \times \frac{1}{4}$	1 $\frac{1}{2} \times 1$	1 $\frac{1}{2} \times 1 \frac{1}{4}$	2 $\times 1$	2 $\times 1 \frac{1}{4}$	
Black	Each	29	44	.50	.44	.50	.63	.71	.88	
Galv	Each	47	71	.81	.72	.91	1.05	1.15	1.45	
Size	Inches	2 $\times 1 \frac{1}{2}$	2 $\frac{1}{2} \times 1 \frac{1}{2}$	2 $\frac{1}{2} \times 2$	3 $\times 2$	3 $\times 2 \frac{1}{2}$	3 $\frac{1}{2} \times 3$	4 $\times 3$	4 $\times 3 \frac{1}{2}$	
Black	Each	97	1.35	1.40	2.15	2.50	4.15	5.10	5.65	
Galv	Each	1.60	2.25	2.25	3.55	4.10	6.80	8.50	9.25	

Dimensions of Fittings Page 37.

Plain Fittings are not Stocked.

MALLEABLE IRON FITTINGS

45° ELBOWS



Fig. 288

SIDE OUTLET ELBOWS



Fig. 289

Fig. 288 45° ELBOWS

Size.....Inches	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Black.....Each	.08	.13	.19	.28	.50	.75	.86	1.55
Galv.....Each	.12	.19	.28	.42	.74	1.10	1.30	2.30
Size.....Inches	2 1/2	3	3 1/2	4	4 1/2	5	6	
Black.....Each	1.65	2.40	4.00	3.95	5.05	6.35	9.60	
Galv.....Each	2.65	3.95	6.50	6.45	8.25	10.35	15.85	

Dimensions of 45° Elbows Page 37.

Fig. 289 SIDE OUTLET ELBOWS

Size.....Inches	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Black.....Each	.13	.24	.38	.51	1.10	1.10	1.65
Galv.....Each	.19	.36	.56	.76	1.60	1.65	2.45
Size.....Inches	3/8x3/8x1/4	1/2x1/2x3/8	3/4x3/4x3/8	3/4x3/4x1/2	1x1x3/4	1 1/4x1 1/4x1	
Black.....Each	.14	.22	.34	.36	.40	1.05	
Galv.....Each	.20	.33	.50	.53	.59	1.60	

STREET ELBOWS



Fig. 290

Size.....Inches	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Black.....Each		.08	.12	.22	.30	.35	.57	.69	1.20	1.90	2.90
Galv.....Each		.12	.18	.32	.45	.58	.93	1.10	2.00	3.05	4.75
Size.....Inches	4	3/4x1 1/2	1x1 1/2	1x3/4	1 1/4x1	1 1/2x1 1/4	2x1 1/4	2x1 1/2	2 1/2x2	3x2 1/2	4x3
Black.....Each	6.15	.24	.42	.47	.44	.64	.91	1.00	1.85	2.95	6.00
Galv.....Each	10.05	.36	.63	.70	.71	1.05	1.50	1.65	3.00	4.80	9.80

MALLEABLE IRON FITTINGS



Fig. 291 Plain

TEES Straight and Reducing



Fig. 292 Beaded

Size	Price Each		Size	Price Each	
	Black	Galv'd		Black	Galv'd
$\frac{1}{8}$	.13	.17	$\frac{3}{4} \times \frac{3}{8} \times \frac{1}{2}$	.37	.55
$\frac{1}{4}$	.11	.17	$\frac{3}{4} \times \frac{3}{8} \times \frac{3}{4}$	.41	.61
$\frac{3}{8}$	.18	.26	$\frac{3}{4} \times \frac{3}{8} \times 1$	.54	.81
$\frac{1}{2}$	.24	.36	$\frac{3}{4} \times \frac{1}{2} \times \frac{1}{4}$	.39	.59
$\frac{3}{4}$	.27	.44	$\frac{3}{4} \times \frac{1}{2} \times \frac{3}{8}$	.29	.43
1	.43	.70	$\frac{3}{4} \times \frac{1}{2} \times \frac{1}{2}$	.36	.54
$1\frac{1}{4}$	.74	1.20	$\frac{3}{4} \times \frac{1}{2} \times \frac{3}{4}$	.37	.55
$1\frac{1}{2}$	.96	1.60	$\frac{3}{4} \times \frac{1}{2} \times 1$	.52	.78
2	1.45	2.40	$\frac{3}{4} \times \frac{3}{4} \times \frac{1}{4}$	.32	.48
$2\frac{1}{2}$	2.60	4.40	$\frac{3}{4} \times \frac{3}{4} \times \frac{3}{8}$	.32	.48
3	4.15	6.85	$\frac{3}{4} \times \frac{3}{4} \times \frac{1}{2}$	.35	.53
$3\frac{1}{2}$	5.50	9.05	$\frac{3}{4} \times \frac{3}{4} \times 1$	.36	.60
4	6.85	11.30	1 x $\frac{3}{8} \times \frac{1}{2}$	.54	.81
$4\frac{1}{2}$	9.70	16.00	1 x $\frac{3}{8} \times \frac{3}{4}$	.61	.91
5	12.20	20.10	1 x $\frac{3}{8} \times 1$	.72	1.10
6	17.35	28.55	1 x $\frac{1}{2} \times \frac{3}{8}$	.55	.83
$\frac{1}{8} \times \frac{1}{8} \times \frac{1}{4}$	.14	.19	1 x $\frac{1}{2} \times \frac{1}{2}$	.48	.72
$\frac{1}{4} \times \frac{1}{4} \times \frac{1}{8}$	.19	.26	1 x $\frac{1}{2} \times \frac{3}{4}$	.60	.90
$\frac{1}{4} \times \frac{1}{4} \times \frac{3}{8}$	.22	.34	1 x $\frac{1}{2} \times 1$	.58	.87
$\frac{3}{8} \times \frac{1}{4} \times \frac{1}{4}$	.09	.13	1 x $\frac{3}{4} \times \frac{3}{8}$	.46	.69
$\frac{3}{8} \times \frac{1}{4} \times \frac{3}{8}$	.16	.24	1 x $\frac{3}{4} \times \frac{1}{2}$	.44	.66
$\frac{3}{8} \times \frac{3}{8} \times \frac{1}{8}$	.37	.49	1 x $\frac{3}{4} \times \frac{3}{4}$	.39	.64
$\frac{3}{8} \times \frac{3}{8} \times \frac{1}{4}$	.17	.25	1 x $\frac{3}{4} \times 1$	.45	.74
$\frac{3}{8} \times \frac{3}{8} \times \frac{1}{2}$	.20	.30	1 x $\frac{3}{4} \times 1\frac{1}{4}$	.51	.85
$\frac{3}{8} \times \frac{3}{8} \times \frac{3}{4}$	.30	.46	1 x 1 x $\frac{1}{4}$	1.35	2.05
$\frac{1}{2} \times \frac{1}{4} \times \frac{1}{2}$	.16	.24	1 x 1 x $\frac{3}{8}$	.66	.99
$\frac{1}{2} \times \frac{3}{8} \times \frac{1}{4}$	.18	.26	1 x 1 x $\frac{1}{2}$	.62	.93
$\frac{1}{2} \times \frac{3}{8} \times \frac{3}{8}$	.19	.29	1 x 1 x $\frac{3}{4}$	.43	.70
$\frac{1}{2} \times \frac{3}{8} \times \frac{1}{2}$	.26	.40	1 x 1 x $1\frac{1}{4}$	.58	.95
$\frac{1}{2} \times \frac{3}{8} \times \frac{3}{4}$	.28	.42	1 x 1 x $1\frac{1}{2}$	.71	1.15
$\frac{1}{2} \times \frac{1}{2} \times \frac{1}{4}$	.22	.34	1 x 1 x 2	.94	1.55
$\frac{1}{2} \times \frac{1}{2} \times \frac{3}{8}$	.26	.38	$1\frac{1}{4} \times \frac{3}{8} \times 1\frac{1}{4}$	.91	1.35
$\frac{1}{2} \times \frac{1}{2} \times \frac{3}{4}$	.34	.50	$1\frac{1}{4} \times \frac{1}{2} \times 1$	.88	1.30
$\frac{1}{2} \times \frac{1}{2} \times 1$	.46	.69	$1\frac{1}{4} \times \frac{1}{2} \times 1\frac{1}{4}$	.88	1.30
$\frac{3}{4} \times \frac{1}{4} \times \frac{3}{4}$	.46	.69	$1\frac{1}{4} \times \frac{3}{4} \times \frac{3}{4}$	.52	.95
$\frac{3}{4} \times \frac{3}{8} \times \frac{3}{8}$	.34	.52	$1\frac{1}{4} \times \frac{3}{4} \times 1$	.52	.86

Dimensions of Fittings Page 37. Plain Fittings are not Stocked.

MALLEABLE IRON FITTINGS

TEES—Cont'd

Size	Price Each		Size	Price Each	
	Black	Galv'd		Black	Galv'd
1 1/4 x 3/4 x 1 1/4	.63	1.05	2 x 1 1/2 x 2	1.30	2.15
1 1/4 x 1 x 3/8	.70	1.05	2 x 2 x 1/2	1.25	1.85
1 1/4 x 1 x 1/2	.76	1.15	2 x 2 x 3/4	.89	1.45
1 1/4 x 1 x 3/4	.43	.71	2 x 2 x 1	1.05	1.75
1 1/4 x 1 x 1	.64	1.05	2 x 2 x 1 1/4	1.10	1.85
1 1/4 x 1 x 1 1/4	.66	1.10	2 x 2 x 1 1/2	1.25	2.05
1 1/4 x 1 x 1 1/2	.87	1.45	2 x 2 x 2 1/2	1.90	3.15
1 1/4 x 1 1/4 x 3/8	.74	1.10	2 x 2 x 3	2.40	4.00
1 1/4 x 1 1/4 x 1/2	.80	1.20	2 1/2 x 2 x 2 1/2	2.35	3.90
1 1/4 x 1 1/4 x 3/4	.58	.95	2 1/2 x 2 1/2 x 3/4	1.65	2.75
1 1/4 x 1 1/4 x 1	.62	1.05	2 1/2 x 2 1/2 x 1	1.35	2.25
1 1/4 x 1 1/4 x 1 1/2	.79	1.30	2 1/4 x 2 1/2 x 1 1/4	1.80	3.00
1 1/4 x 1 1/4 x 2	.92	1.50	2 1/2 x 2 1/2 x 1 1/2	1.35	2.25
1 1/2 x 3/8 x 1 1/2	1.30	1.90	2 1/2 x 2 1/2 x 2	2.35	3.85
1 1/2 x 1/2 x 1 1/2	1.20	1.75	2 1/2 x 2 1/2 x 3	3.25	5.35
1 1/2 x 3/4 x 3/4	.73	1.20	3 x 2 x 3	3.40	5.55
1 1/2 x 3/4 x 1 1/2	.78	1.30	3 x 3 x 3/4	2.60	4.30
1 1/2 x 1 x 1	.71	1.15	3 x 3 x 1	3.05	5.00
1 1/2 x 1 x 1 1/4	.76	1.25	3 x 3 x 1 1/4	3.00	4.90
1 1/2 x 1 x 1 1/2	.83	1.35	3 x 3 x 1 1/2	2.55	4.15
1 1/2 x 1 1/4 x 3/4	.68	1.10	3 x 3 x 2	3.05	5.05
1 1/2 x 1 1/4 x 1	.69	1.15	3 x 3 x 2 1/2	3.25	5.35
1 1/2 x 1 1/4 x 1 1/4	.78	1.30	3 1/2 x 3 1/2 x 2 1/2	4.15	6.85
1 1/2 x 1 1/4 x 1 1/2	.87	1.45	3 1/2 x 3 1/2 x 3	5.05	8.35
1 1/2 x 1 1/4 x 2	1.15	1.95	4 x 3 x 4	6.10	10.05
1 1/2 x 1 1/2 x 3/8	.86	1.30	4 x 4 x 1	4.45	7.30
1 1/2 x 1 1/2 x 1/2	.95	1.45	4 x 4 x 1 1/4	4.70	7.70
1 1/2 x 1 1/2 x 3/4	.75	1.25	4 x 4 x 1 1/2	4.50	7.40
1 1/2 x 1 1/2 x 1	.78	1.30	4 x 4 x 2	4.50	7.40
1 1/2 x 1 1/2 x 1 1/4	.83	1.35	4 x 4 x 2 1/2	5.40	8.90
1 1/2 x 1 1/2 x 2	1.15	1.95	4 x 4 x 3	6.25	10.25
2 x 3/8 x 2	1.80	2.70	4 x 4 x 3 1/2	7.55	12.40
2 x 1/2 x 2	1.80	2.70	5 x 5 x 2	6.50	10.70
2 x 3/4 x 2	1.05	1.70	5 x 5 x 3	10.90	18.00
2 x 1 x 2	1.30	2.15	5 x 5 x 4	13.00	21.40
2 x 1 1/4 x 1 1/4	1.20	2.00	6 x 6 x 2	10.60	17.45
2 x 1 1/4 x 1 1/2	1.15	1.85	6 x 6 x 3	11.15	18.35
2 x 1 1/4 x 2	1.25	2.10	6 x 6 x 4	13.25	21.85
2 x 1 1/2 x 1	.91	1.50			
2 x 1 1/2 x 1 1/4	1.10	1.75			
2 x 1 1/2 x 1 1/2	1.15	1.85			

Dimensions of Fittings Page 37. Plain Fittings are not Stocked.

MALLEABLE IRON FITTINGS

CROSSES

Straight and Reducing



Fig 293 Plain



Fig 294 Beaded

Size	Price Each		Size	Price Each	
	Black	Galv.		Black	Galv.
$\frac{1}{4}$	.10	.16	1 x $\frac{3}{4}$ x $\frac{3}{4}$	.72	1.10
$\frac{3}{8}$	.22	.34	1 x 1 x $\frac{3}{8}$	.58	.88
$\frac{1}{2}$	.32	.48	1 x 1 x $\frac{1}{2}$	.64	.97
$\frac{3}{4}$	.48	.73	1 x 1 x $\frac{3}{4}$	.78	1.15
1	1.00	1.50	$1\frac{1}{4}$ x 1 x $\frac{3}{4}$	.48	.79
$1\frac{1}{4}$	.79	1.30	$1\frac{1}{4}$ x 1 x 1	.49	.82
$1\frac{1}{2}$	1.15	1.90	$1\frac{1}{4}$ x $1\frac{1}{4}$ x $\frac{3}{8}$	.86	1.30
2	1.80	3.00	$1\frac{1}{4}$ x $1\frac{1}{4}$ x $\frac{1}{2}$	.84	1.25
$2\frac{1}{2}$	3.10	5.20	$1\frac{1}{4}$ x $1\frac{1}{4}$ x $\frac{3}{4}$	.83	1.40
3	4.75	7.85	$1\frac{1}{4}$ x $1\frac{1}{4}$ x 1	.77	1.30
$3\frac{1}{2}$	5.50	9.15	$1\frac{1}{2}$ x $1\frac{1}{4}$ x $1\frac{1}{4}$	1.05	1.75
4	8.75	14.55	$1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{1}{2}$	1.05	1.60
5	14.95	24.85	$1\frac{1}{2}$ x $1\frac{1}{2}$ x $\frac{3}{4}$	.65	1.10
6	20.40	33.90	$1\frac{1}{2}$ x $1\frac{1}{2}$ x 1	.84	1.40
$\frac{3}{8}$ x $\frac{3}{8}$ x $\frac{1}{4}$	.19	.29	$1\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{4}$	.96	1.60
$\frac{1}{2}$ x $\frac{3}{8}$ x $\frac{3}{8}$	.23	.35	2 x 2 x $\frac{1}{2}$	1.50	2.30
$\frac{1}{2}$ x $\frac{1}{4}$ x $\frac{1}{4}$	.24	.36	2 x 2 x $\frac{3}{4}$	.91	1.50
$\frac{1}{2}$ x $\frac{1}{2}$ x $\frac{3}{8}$	.24	.36	2 x 2 x 1	1.15	2.30
$\frac{3}{4}$ x $\frac{3}{8}$ x $\frac{1}{2}$	.46	.69	2 x 2 x $1\frac{1}{4}$	1.60	2.65
$\frac{3}{4}$ x $\frac{1}{2}$ x $\frac{3}{8}$	.46	.70	2 x 2 x $1\frac{1}{2}$	2.00	3.35
$\frac{3}{4}$ x $\frac{1}{2}$ x $\frac{1}{2}$	.48	.73	$2\frac{1}{2}$ x $2\frac{1}{2}$ x 2	2.60	4.30
$\frac{3}{4}$ x $\frac{3}{4}$ x $\frac{3}{8}$	.38	.57	3 x 3 x 2	3.40	5.60
$\frac{3}{4}$ x $\frac{3}{4}$ x $\frac{1}{2}$	.42	.64	3 x 3 x $2\frac{1}{2}$	3.90	6.45
1 x $\frac{1}{2}$ x $\frac{3}{8}$	.52	.79	4 x 4 x 2	5.55	9.20
1 x $\frac{3}{4}$ x $\frac{3}{8}$	.50	.75	4 x 4 x 3	5.70	10.30
1 x $\frac{3}{4}$ x $\frac{1}{2}$	.70	1.05			

Plain Fittings are not Stocked.

MALLEABLE IRON FITTINGS

DROP ELBOWS

Female



Fig. 295

M and F Short



Fig. 296

M. and F. Long



Fig. 297

Fig. 295 Female

Size.....Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{8} \times \frac{1}{4}$	$\frac{3}{4} \times \frac{1}{2}$
Black.....Each	.10	.18	.27	.46	.13	.41
Galv.....Each	.14	.26	.40	.68	.19	.61

Fig. 296 Male and Female Short

Size.....Inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{4} \times \frac{3}{8}$	$\frac{1}{2} \times \frac{3}{8}$
Black.....Each	.14	.27	.11	.24
Galv.....Each	.20	.40	.17	.36

Fig. 297 Male and Female Long

Size.....Inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{4} \times \frac{3}{8}$	$\frac{1}{2} \times \frac{3}{8}$
Black.....Each	.22	.38	.18	.34
Galv.....Each	.32	.57	.27	.50

4 WAY TEES



Fig. 298

Size.....Inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Black.....Each	.18	.23	.34	.61	1.00	1.20	1.90
Galv.....Each	.28	.35	.52	.92	1.50	1.80	2.85

MALLEABLE IRON FITTINGS

DROP TEES

Female



Fig. 299

M. and F Short



Fig. 302

M and F. Long



Fig. 303

Fig. 299 Female

Size	Inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{1}{8} \times \frac{3}{8} \times \frac{1}{4}$	$\frac{1}{2} \times \frac{3}{8} \times \frac{3}{8}$	$\frac{1}{2} \times \frac{1}{2} \times \frac{3}{8}$
Black	Each	.19	.29	.39	.17	.21	.22
Galv	Each	.28	.43	.58	.25	.31	.32

Size	Inches	$\frac{3}{4} \times \frac{1}{2} \times \frac{3}{8}$	$\frac{3}{4} \times \frac{3}{4} \times \frac{1}{4}$	$\frac{3}{4} \times \frac{3}{4} \times \frac{3}{8}$	$\frac{3}{4} \times \frac{3}{4} \times \frac{1}{2}$	$1 \times 1 \times \frac{3}{8}$
Black	Each	.35	.33	.31	.35	.58
Galv	Each	.52	.49	.46	.52	.85

Fig. 302 Male and Female Short

Size	Inches	$\frac{1}{4} \times \frac{1}{4} \times \frac{3}{8}$	$\frac{3}{8} \times \frac{1}{4} \times \frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{2} \times \frac{3}{8} \times \frac{3}{8}$
Black.....	Each	.16	.18	.16	.22
Galv.....	Each	.24	.27	.24	.32
Size	Inches	$\frac{1}{2} \times \frac{1}{2} \times \frac{3}{8}$	$\frac{3}{4} \times \frac{1}{2} \times \frac{3}{8}$	$\frac{3}{4} \times \frac{3}{4} \times \frac{3}{8}$	$1 \times 1 \times \frac{3}{8}$
Black.....	Each	.19	.29	.30	.43
Galv.....	Each	.28	.43	.45	.64

Fig. 303 Male and Female Long

Size.....	Inches	$\frac{3}{8}$	$\frac{3}{4} \times \frac{3}{4} \times \frac{1}{2}$	$1 \times 1 \times \frac{1}{2}$	$1 \frac{1}{4} \times 1 \frac{1}{4} \times \frac{1}{2}$
Black.....	Each	.18	.46	.49	.74
Galv.....	Each	.27	.69	.72	1.10

MALLEABLE IRON FITTINGS
SERVICE TEES



Fig. 304

Size	Price Each		Size	Price Each	
	Black	Galv'd		Black	Galv'd
$\frac{3}{8}$	.20	.30	1 x 1 x $\frac{3}{4}$	.67	1.00
$\frac{1}{2}$	.26	.38	1 x 1 x $1\frac{1}{4}$	.42	.68
$\frac{3}{4}$	.39	.59	$1\frac{1}{4}$ x $\frac{3}{4}$ x $1\frac{1}{4}$	.49	.81
1	.39	.64	$1\frac{1}{4}$ x 1 x 1	.60	.98
$1\frac{1}{4}$	.75	1.25	$1\frac{1}{4}$ x 1 x $1\frac{1}{4}$	.68	1.10
$1\frac{1}{2}$	.95	1.55	$1\frac{1}{2}$ x $\frac{3}{4}$ x $1\frac{1}{2}$	.82	1.35
2	1.55	2.55	$1\frac{1}{2}$ x 1 x $1\frac{1}{2}$	.86	1.40
$2\frac{1}{2}$	2.50	4.10	$1\frac{1}{2}$ x $1\frac{1}{4}$ x $1\frac{1}{2}$	.89	1.45
3	3.55	5.80	2 x $1\frac{1}{2}$ x 2	1.45	2.40
$\frac{3}{4}$ x $\frac{1}{2}$ x $\frac{3}{4}$	.36	.54	$2\frac{1}{2}$ x 2 x $2\frac{1}{2}$	2.20	3.60
$\frac{3}{4}$ x $\frac{3}{4}$ x 1	.42	.62	3 x $2\frac{1}{2}$ x 3	2.95	4.90
1 x $\frac{3}{4}$ x 1	.48	.72	3 x 3 x 4	3.90	6.40

Y BENDS



Fig. 305

Size	Price Each		Size	Price Each	
	Black	Galv'd		Black	Galv'd
$\frac{1}{2}$	.37	.55	$1\frac{1}{2}$ x $1\frac{1}{4}$ x $1\frac{1}{2}$	1.90	2.85
$\frac{3}{4}$	.40	.59	.....	.....	.....
1	.80	1.20	$1\frac{1}{2}$ x $1\frac{1}{2}$ x $1\frac{1}{4}$	1.90	2.80
$1\frac{1}{4}$	1.45	2.15	2 x $1\frac{1}{4}$ x $1\frac{1}{4}$	2.20	3.25
$1\frac{1}{2}$	1.90	2.85	2 x $1\frac{1}{4}$ x $1\frac{1}{2}$	2.00	3.00
2	3.20	4.75	2 x $1\frac{1}{4}$ x 2	2.15	3.20
$2\frac{1}{2}$	.....	.....	2 x $1\frac{1}{2}$ x $1\frac{1}{4}$	1.70	2.55
3	.....	.....	2 x $1\frac{1}{2}$ x $1\frac{1}{2}$	1.80	2.65
4	.....	.....	2 x $1\frac{1}{2}$ x 2	2.25	3.30
$1\frac{1}{4}$ x $1\frac{1}{4}$ x $\frac{3}{4}$	1.10	1.60	2 x 2 x $1\frac{1}{4}$	2.60	3.85
$1\frac{1}{2}$ x $1\frac{1}{4}$ x $1\frac{1}{4}$	1.90	2.80	2 x 2 x $1\frac{1}{2}$	3.30	4.90

MALLEABLE IRON FITTINGS

COUPLINGS



Fig. 306 Straight



Fig. 307 Reducing

Fig. 306 Straight

Size	Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Right Hand Black	Each	.06	.10	.18	.26	.30	.44	.52	.83
Right Hand Galv.	Each	.09	.14	.27	.38	.49	.71	.85	1.35
Right and Left Black	Each	.07	.12	.16	.29	.33	.44	.52	.83
Right and Left Galv.	Each	.11	.18	.24	.43	.53	.72	.85	1.35
Size	Inches	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	
Right Hand Black	Each	1.35	2.10	4.20	4.95	6.70	7.60	11.50	
Right Hand Galv.	Each	2.20	3.40	6.25	7.30	9.90	11.30	17.05	
Right and Left Black	Each	1.30	1.75						
Right and Left Galv.	Each	2.10	2.90						

Fig. 307 Reducing.

Size	Black	Galv.	Size	Black	Galv.
$\frac{1}{4}$ x $\frac{1}{8}$	.13	.17	2 x 1	.66	1.10
$\frac{3}{8}$ x $\frac{1}{8}$	.14	.19	2 x $1\frac{1}{4}$	.68	1.10
$\frac{3}{8}$ x $\frac{1}{4}$	.10	.14	2 x $1\frac{1}{2}$	.68	1.10
$\frac{1}{2}$ x $\frac{1}{8}$	.29	.38	$2\frac{1}{2}$ x 1	1.10	1.80
$\frac{1}{2}$ x $\frac{1}{4}$	.13	.19	$2\frac{1}{2}$ x $1\frac{1}{4}$	1.00	1.65
$\frac{1}{2}$ x $\frac{3}{8}$	.15	.23	$2\frac{1}{2}$ x $1\frac{1}{2}$	.95	1.55
$\frac{3}{4}$ x $\frac{1}{4}$	.21	.31	$2\frac{1}{2}$ x 2	1.15	1.90
$\frac{3}{4}$ x $\frac{3}{8}$	.18	.27	3 x 1	1.45	2.35
$\frac{3}{4}$ x $\frac{1}{2}$	.22	.33	3 x $1\frac{1}{4}$	1.45	2.35
1 x $\frac{1}{4}$	.32	.47	3 x $1\frac{1}{2}$	1.45	2.40
1 x $\frac{3}{8}$	.33	.49	3 x 2	1.55	2.55
1 x $\frac{1}{2}$	.35	.52	3 x $2\frac{1}{2}$	1.60	2.65
1 x $\frac{3}{4}$	.40	.59	$3\frac{1}{2}$ x 2	1.65	2.70
$1\frac{1}{4}$ x $\frac{3}{8}$	.40	.59	$3\frac{1}{2}$ x $2\frac{1}{2}$	2.10	3.40
$1\frac{1}{4}$ x $\frac{1}{2}$	.36	.53	$3\frac{1}{2}$ x 3	2.35	3.80
$1\frac{1}{4}$ x $\frac{3}{4}$	.26	.42	4 x 1	2.50	4.05
$1\frac{1}{4}$ x 1	.33	.53	4 x $1\frac{1}{4}$	2.50	4.10
$1\frac{1}{2}$ x $\frac{1}{2}$	.56	.83	4 x $1\frac{1}{2}$	2.40	3.95
$1\frac{1}{2}$ x $\frac{3}{4}$	.39	.64	4 x 2	2.45	3.95
$1\frac{1}{2}$ x 1	.42	.68	4 x $2\frac{1}{2}$	2.50	4.10
$1\frac{1}{2}$ x $1\frac{1}{4}$	.50	.81	4 x 3	2.90	4.75
2 x $\frac{1}{2}$	.94	1.45	4 x $3\frac{1}{2}$	3.25	5.30
2 x $\frac{3}{4}$	.68	1.10			

MALLEABLE IRON FITTINGS

BUSHINGS



Fig. 308 Bushings



Fig. 309 Faced Bushings

Fig. 308 Bushings

Size.....Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$
Black.....Each	.04	.04	.04	.05	.06	.07	.09	.14	.21
Galv.....Each	.08	.08	.08	.10	.12	.14	.18	.28	.42

Fig. 309 Faced Bushings

Size.....Inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Black.....Each	.08	.09	.11	.13	.17	.22	.32	.48	.70
Galv.....Each	.12	.14	.17	.20	.25	.33	.48	.72	1.05
Size.....Inches	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	7	8	10	12
Black.....Each	1.20	1.50	2.10	2.60	3.75	8.00	9.00	14.00	20.00
Galv.....Each	1.80	2.25	3.15	3.90	5.60				

CAPS



Fig. 310

LOCKNUTS



Fig. 311

Fig. 310 CAPS

Size.....Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Black.....Each	.04	.06	.13	.16	.30	.30	.36	.59
Galv.....Each	.06	.08	.19	.24	.45	.48	.59	.97
Size.....Inches	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	5	6		
Black.....Each	.99	1.55	2.05	2.45	3.95	6.65		
Galv.....Each	1.60	2.50	3.35	4.00	6.45	10.80		

Fig. 311 LOCKNUTS

Size.....Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Black.....Each	.03	.04	.06	.10	.15	.23	.17	.22
Galv.....Each	.05	.06	.09	.14	.23	.34	.27	.36

MALLEABLE IRON FITTINGS

RETURN BENDS



Fig. 312 Close



Fig. 313 Medium



Fig. 314 Open

Fig. 312 Close

Size	Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Centre To Centre	Inches	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	$2\frac{1}{8}$	$2\frac{5}{8}$
R. H. Black	Each	.29	.38	.72	.75	1.00	1.55
R. & L. Black	Each	.58	.39	.73	1.20	1.55	2.50
R. H. Galv'd	Each	.43	.57	1.05	1.20	1.65	2.55
R. & L. Galv'd	Each	.76	.58	1.10	1.75	2.30	3.70

Fig. 313 Medium

Size	Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Centre To Centre	Inches	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{7}{8}$	$2\frac{1}{4}$	$2\frac{1}{2}$	3
R. H. Black	Each	.29	.42	.93	.85	1.05	1.85
R. & L. Black	Each	.64	.43	.94	1.35	1.65	2.90
R. H. Galv'd	Each	.43	.62	1.40	1.40	1.70	3.05
R. & L. Galv'd	Each	.85	.64	1.40	2.00	2.40	4.25

Fig. 314 Open

Size	Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Centre To Centre	Inches	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5
R. H. Black	Each	.32	.50	.96	.94	1.25	2.00	3.85	5.70
R. & L. Black	Each	.66	.51	1.00	1.45	2.00	3.05	6.00	8.90
R. H. Galv'd	Each	.47	.75	1.40	1.55	2.10	3.20	6.30	9.35
R. & L. Galv'd	Each	.87	.76	1.50	2.15	3.00	4.55	8.90	13.20

MALLEABLE IRON FITTINGS

CROSS OVERS



Fig. 315

WASTE NUTS



Fig. 316

EXTENSION PIECES



Fig. 317

Fig. 315 Crossovers

Size	Inches	$\frac{1}{2}$	$\frac{3}{4}$	1
Black	Each	.20	.30	.45
Galv'd	Each	.25	.40	.60

Fig. 316 Waste Nuts

Size	Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$
Black	Each	.04	.05	.06	.08	.10	.15	.25
Galv'd	Each	.08	.10	.12	.16	.20	.30	.50

Fig. 317 Extension Pieces

Size	Inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Black	Each	.06	.09	.12	.15	.25	.30	.50
Galv'd	Each	.09	.13	.18	.23	.38	.45	.75

Wash Tray Tees



Fig. 318

Wash Tray Elbows



Fig. 319

Fig. 318 Wash Tray Tees

Size	Inches	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{4} \times 1\frac{1}{2}$	1
Galv'd	Each	.20	.30	.30	.30

Fig. 319 Wash Tray Elbows

Size	Inches	$\frac{1}{2}$	$\frac{3}{4}$
R. H. Galv'd	Each	20	30
L. H. Galv'd	Each	20	30

MALLEABLE IRON FITTINGS

Chandelier Hooks and Loops
Male



Fig. 320

Chandelier Hooks and Loops
Female



Fig. 321

Wall Plates



Fig. 322

Figs. 320 and 321 Chandelier Hooks and Loops

Size	Inches	$\frac{3}{8}$	$\frac{1}{2}$
Male	Each	.10	.12
Female	Each	.10	.12

Fig. 322 Wall Plates

Size	Inches	$\frac{1}{8}$	$\frac{1}{2}$	$\frac{3}{4}$
Fig. 322	Each	12	16	30

FLOOR FLANGES



Fig. 323

Size	Inches	$\frac{1}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$
Black	Each	.16	.24	.34	.42	.58	.73	.88	1.65
Galv'd	Each	.24	.36	.50	.68	.94	1.20	1.45	2.65

STOP COCK WRENCHES



Fig. 324

Size of Stop Cock	Inches	$\frac{1}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4
Fig. 324	Each	.07	.07	.09	.14	.19	.25	.44	.56	1.00	2.00	2.50

UNIONS



Fig. 325

UNIONS
MALLEABLE IRON

TWO-THIRDS UNIONS



Fig. 326

Fig. 325 Unions

Size.....Inches	$\frac{1}{8}$ — $\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4
Fig. 325—Black.....Each	.18	.20	.22	.27	.33	.46	.58	.75	1.55	2.10	3.65	4.35
Fig. 325—Galv'd.....Each	.27	.30	.33	.40	.50	.70	.90	1.15	2.35	3.15	5.50	6.50

Fig. 326 Two-Thirds Unions

Size.....Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4
Fig. 326—Black.....Each	.12	.14	.16	.19	.22	.30	.40	.50	1.00	1.40	2.40	3.00
Fig. 326—Galv'd.....Each	.18	.20	.22	.25	.35	.50	.60	.75	1.60	2.10	3.70	4.35

FEMALE

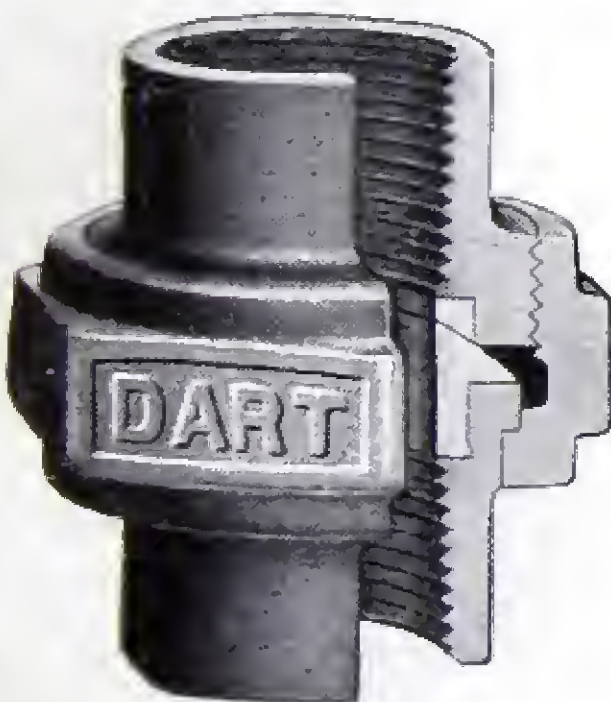


Fig. 327

“DART” UNIONS
MALLEABLE IRON—BRONZE SEATS

MALE AND FEMALE

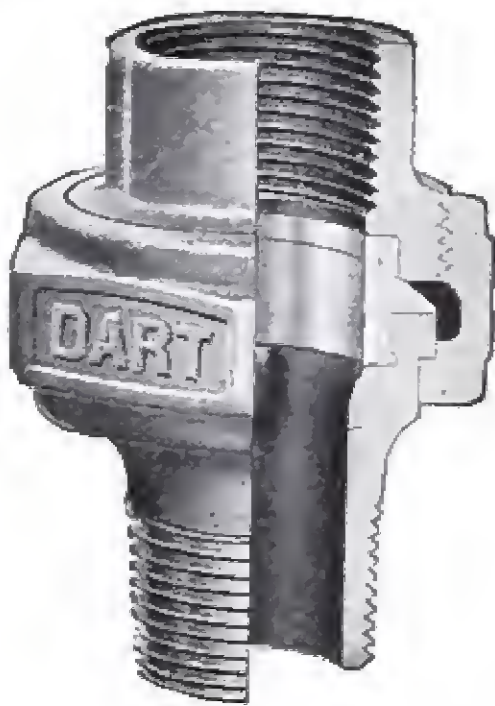


Fig. 328

No. 327 Female

Size.....Inches	$\frac{1}{8}$ — $\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4
Fig. 327—Black.....Each	.30	.40	.50	.60	.80	1.20	1.60	2.00	3.20	4.80	7.20	10.80
Fig. 327—Galv'd.....Each	.39	.52	.65	.78	1.04	1.56	2.08	2.60	4.16	6.24	9.36	14.04

Fig. 328 Male and Female

Size.....Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3
Fig. 328—Black.....Each	.38	.50	.62	.75	1.00	1.50	2.00	2.50	4.00	6.00
Fig. 328—Galv'd.....Each	.50	.65	.81	.98	1.30	1.95	2.60	3.25	5.20	7.80

“DART” UNIONS

“DART” FLANGE UNIONS

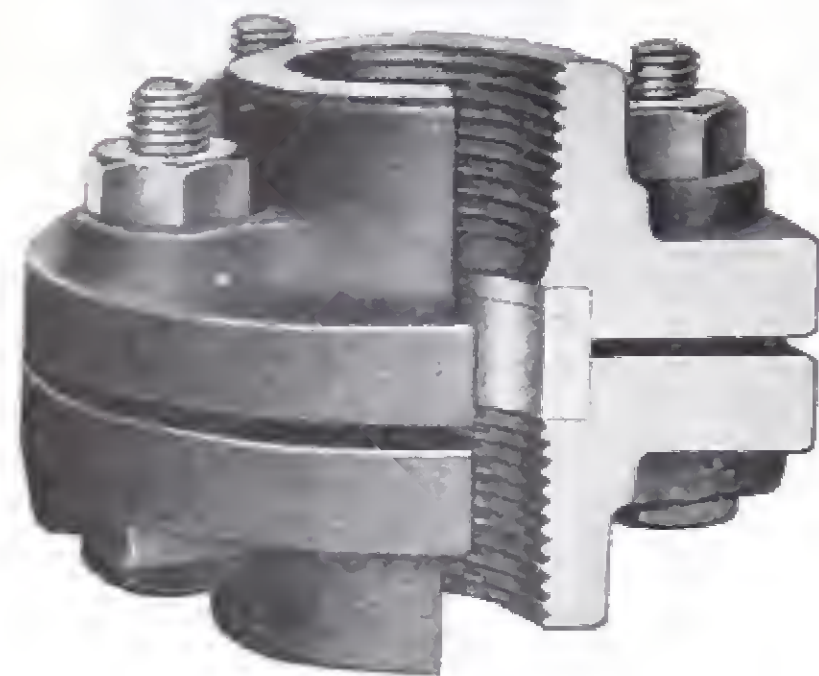


Fig. 329

MALLEABLE IRON
BRONZE SEATS

“DART” AIR PUMP OR
REDUCING UNIONS



Fig. 330

Fig. 329 Flange Unions

Size.	Inches	1	1¼	1½	2	2½	3	3½	4
Fig. 329—Black	Each	.80	1.20	1.60	2.00	3.20	4.80	6.00	7.50
Fig. 329—Galv'd	Each	1.04	1.56	2.08	2.60	4.16	6.24	7.80	9.75
Size	Inches	4½	5	6	7	8	9	10	12
Fig. 329—Black.	Each	8.75	10.00	12.50	15.00	18.00	21.60	28.80	46.00
Fig. 329—Galv'd	Each	11.38	13.00	16.25	19.50	23.40	28.08	37.44	59.80

Fig. 330 Air Pump or Reducing Unions

Size.....	Inches	¾-1	1-1¼	1¼-1½	1½-2
Fig. 330—Black.....	Each	.90	1.20	1.80	2.40
Fig. 330—Galv'd.....	Each	1.17	1.56	2.34	3.12

REX UNIONS

MALLEABLE IRON

BRASS TO IRON SEAT



250 Pounds Working Pressure

Fig. 331

Size.....	Inches	⅛	¼	⅜	½	¾	1	1¼	1½	2	2½	3
Black.....	Each	.30	.30	.40	.50	.60	.80	1.20	1.60	2.00	3.20	4.80
Galv'd.....	Each	.45	.45	.60	.75	.90	1.20	1.80	2.40	3.00	4.80	6.20

UNION ELBOWS

MALLEABLE IRON

FEMALE



Fig. 332

MALE AND FEMALE



Fig. 333

Fig. 332 Female

Size.....Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$
Fig. 332—Black.....Each	.38	.40	.42	.54	.63	.90	1.05	1.55	2.85
Fig. 332—Galv'd.....Each	.57	.60	.63	.81	.95	1.35	1.58	2.35	4.30

Fig. 333 Male and Female

Size.....Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$
Fig. 333—Black.....Each	.43	.45	.48	.62	.72	1.05	1.20	1.80	3.30
Fig. 333—Galv'd.....Each	.65	.70	.72	.93	1.08	1.60	1.80	2.70	4.95

“DART” UNION ELBOWS

MALLEABLE IRON—BRONZE SEATS

FEMALE



Fig. 334

MALE AND FEMALE



Fig. 335

Figs. 334 and 335. “DART” UNION ELBOWS

Size.....Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Figs. 334 and 335—Black.....Each	.45	.60	.75	.90	1.20	1.80	2.40	3.00
Figs. 334 and 335—Galv'd.....Each	.59	.78	.98	1.17	1.56	2.34	3.12	3.90

FEMALE



Fig. 336

UNION TEES
MALLEABLE IRON

MALE AND FEMALE



Fig. 337

Figs. 336 and 337. UNION TEES

Size.....Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$
Fig. 336—Black.....Each	.40	.43	.45	.57	.70	.95	1.15	1.70	3.20
Fig. 336—Galv'd.....Each	.60	.65	.68	.86	1.05	1.45	1.75	2.55	4.80
Fig. 337—Black.....Each	.48	.50	.52	.65	.80	1.10	1.30	1.95	3.70
Fig. 337—Galv'd.....Each	.72	.75	.78	1.00	1.20	1.65	1.95	2.95	5.55

FEMALE



Fig. 342

“DART” UNION TEES
UNION ON THE OUTLET
MALLEABLE IRON
BRONZE SEATS

MALE AND FEMALE



Fig. 343

Figs. 342 and 343. “DART” UNION TEES

Size.....Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Figs. 342 and 343—Black.....Each	.50	.66	.82	.99	1.32	1.98	2.64	3.30
Figs. 342 and 343—Galv'd.....Each	.65	.86	1.07	1.29	1.72	2.58	3.43	4.29

FEMALE



Fig. 340

“DART” UNION TEES
UNION ON THE RUN
MALLEABLE IRON
BRONZE SEATS

MALE AND FEMALE



Fig. 341

Figs. 340 and 341. “DART” UNION TEES

Size.....Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Figs. 340 and 341—Black.....Each	.50	.66	.82	.99	1.32	1.98	2.64	3.30
Figs. 340 and 341—Galv'd.....Each	.65	.86	1.07	1.29	1.72	2.58	3.43	4.29

BOILER COUPLINGS

MALLEABLE IRON

WITH UNION

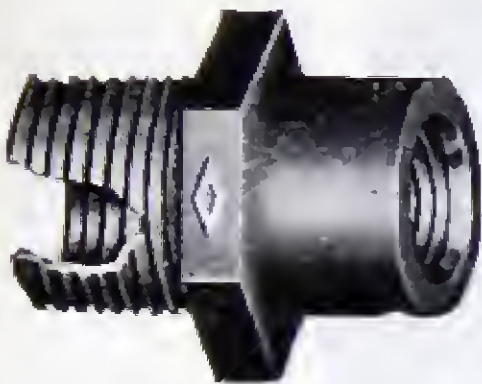


Fig. 344



Fig. 345

NEW STYLE, WITH UNION

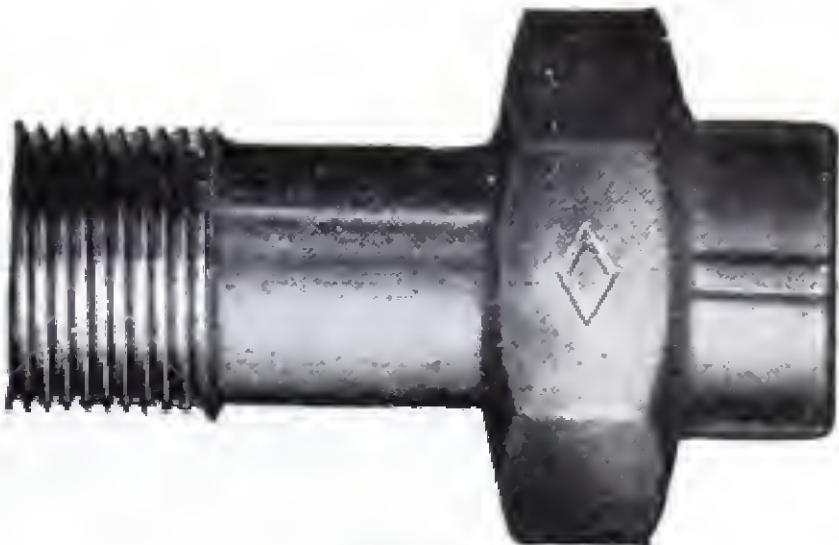


Fig. 346

Size.....Inches	$\frac{1}{2} \times \frac{1}{2} \times 1$	$\frac{3}{4} \times \frac{1}{2} \times 1$	$\frac{3}{4} \times \frac{3}{4} \times 1$
Fig. 344—Galv'd.....Each	.40	.40	.40
Fig. 345—Galv'd.....Each	.60	.75	.75
Fig. 346—Galv'd.....Each	.60	.75	.75

BOILER ELBOWS

MALLEABLE IRON

WITH UNION



Fig. 347



Fig. 348

NEW STYLE, WITH UNION



Fig. 349

	Female Male	Female Male	Female Male
Size.....Inches	$\frac{1}{2} \times \frac{1}{2} \times 1$	$\frac{3}{4} \times \frac{1}{2} \times 1$	$\frac{3}{4} \times \frac{3}{4} \times 1$
Fig. 347—Galv'd.....Each	.40	.40	.40
Fig. 348—Galv'd.....Each	.60	.75	.75
Fig. 349—Galv'd.....Each	.60	.75	.75

RANGE BOILER SUPPLY COCKS

ANGLE OR STRAIGHT



Fig. 350

Consists of red brass compression angle stop with tail piece. Inside thread on bonnet prevents corrosion. Union tail piece is tapped $\frac{1}{2}$ in. and threaded 1 in. with full length threads. The gasket makes a water tight joint between tail piece and body.

On a boiler installation this fitting will eliminate several joints, save considerable in labor charges and will give you more profit on the job.

Rough Brass Body with Enamelled Iron Wheel or Brass Tee Handle.

Rough Nickel Plated Body with Finished N. P. Bonnet Packing Nut and Tee Handle.

REVISED CLASSIFICATION AND PRICE LIST

(Superseding all Previous Classifications.)

MALLEABLE IRON, GAS, WATER AND STEAM FITTINGS

ADOPTED SEPT. 15. 1919.

Class.....	A	B		C	
		Beaded	Plain	Beaded	Plain
Black, per lb.....	.46	.20	.23	.13	.15
Galvanized, per lb.....	.58	.28	.33	.20	.23
Caps.....	1/8	1/4 to 1 inclusive		1 1/4 and larger	
Crosses.....		1/4 to 1 inclusive		1 1/4 and larger	
Crosses, Reducing.....		1 and smaller		1 1/4 and larger	
Couplings, R. H.....	1/8	1/4 to 3/4 inclusive		1 and larger	
Couplings, R. & L.....	1/8	1/4 to 3/4 inclusive		1 and larger	
Couplings, Reducing.....	1/4 x 1/8, 3/8 x 1/8	3/8 x 1/4 to 1 x 3/4 inc.		1 1/4 and larger	
Chandelier Hooks.....		All Sizes			
Chandelier Loops.....		All Sizes			
Elbows.....	1/8	1/4, 3/8, 1/2		3/4 and larger	
Elbows, Reducing.....	1/4 x 1/8, 3/8 x 1/8	3/8 x 1/4 - 1/2 x 1/4 - 1/2 x 3/8		3/4 and larger	
Elbows, 45°.....		1/4 to 2 inclusive		2 1/2 and larger	
Elbows, Street.....		1/4, 3/8, 1/2, 3/4		1 and larger	
Elbows, Street.....		3/4 x 1/2, 1 x 3/4			
Elbows, Side Outlet.....		All Sizes			
Elbows, 60°.....		1/4 to 2 inclusive		2 1/2 and larger	
Elbows, 22 1/2°.....		3/4 to 2 inclusive		2 1/2 and larger	
Elbows, Drop.....		All Sizes			
Extension Pieces.....		All Sizes			
Locknuts.....	1/8	1/4 to 1 1/4 inclusive		1 1/2 and larger	
Pump Rod Couplings.....	3/8, 7/16, 3/8 x 7/16	1/2, 5/8, 3/4			
Return Bends.....	1/4	3/8, 1/2, 3/4, 1		1 1/4 and larger	
Return Bends, R & L.....	3/8, 1/2	3/4 and larger			
Tees.....	1/8	1/4, 3/8, 1/2		3/4 and larger	
Tees, Reducing.....	1/8 x 1/4 - 1/4 x 1/8 - 3/8 x 1/8	1/4 x 3/8, 3/8 x 1/4 x 1/4, 3/8 x 1/4		3/4 and larger	
Tees, Reducing.....	1/2 x 1/8	3/8 x 1/4 x 3/8, 1/2 reduc'g			
Tees, Four Way.....		All Sizes			
Tees, Drop.....		All Sizes			
Tees, Service.....		1/4, 3/8, 1/2, 3/4		1 and larger	
Tees, Service.....		3/4 x 1/2, 1 x 3/4			
Tees, Male Outlet.....		1/2, 3/4		1 and larger	
Waste Nuts.....		All Sizes			
Wall Plates.....		All Sizes			
Y's.....		All Sizes			

*Such fittings in Class C as have one or more openings smaller than 3/4 to be Class B.

The run of Tees gives the sizes for the purpose of classification: the outlet being larger does not change it.

In ordering be particular to state whether beaded or plain.

All fittings, other than standard take 25% extra charge in their respective classes.

R. & L. Ells, beaded only, 1/4 to 2, take one class higher than R. H.

Caps and couplings 1 1/4 and larger both plain and beaded take beaded list.

Extra Heavy Hydraulic MALLEABLE IRON FITTINGS

For Cold Water or Oil working pressures, as follows:

1-inch and smaller	2000 lbs.	2½ to 4-inch	1000 lbs.	8-inch	600 lbs.
1½ to 2-inch	1500 lbs.	5 and 6-inch	800 lbs.	10 and 12-inch	500 lbs.

ELBOWS



Fig. 351

45° ELBOWS



Fig. 352

LONG SWEEP ELBOWS



Fig. 353

TEES



Fig. 354

CROSSES



Fig. 355

REDUCING COUPLINGS



Fig. 356

Size	Inches	¼	½	¾	1	1½	2	2½
Fig. 351-Elbows	Each	.20	.25	.30	.35	.40	.55	.70
Fig. 352-Elbows, 45°	Each	.25	.30	.35	.42	.50	.65	.85
Fig. 353-Long Sweep Elbows	Each	.30	.40	.45	.50	.64	.80	1.10
Fig. 354-Tees	Each	.30	.40	.45	.50	.60	.80	1.05
Fig. 355-Crosses	Each	.60	.80	.90	1.00	1.20	1.60	2.10
Fig. 356-Reducing Couplings	Each			.30	.40	.45	.55	.70

Size	Inches	3	3½	4	5	6	8	10	12
Fig. 351-Elbows	Each	2.40	3.25	4.25	6.50	9.50	21.00	37.00	60.00
Fig. 352-Elbows, 45°	Each	2.85	4.00	5.00	7.50	10.50			
Fig. 353-Long Sweep Elbows	Each	4.50	6.50	7.00	13.00	17.50			
Fig. 354-Tees	Each	3.60	5.00	6.50	9.75	14.25	32.00	55.00	90.00
Fig. 355-Crosses	Each	7.20	10.00	13.00	19.50	28.50			
Fig. 356-Reducing Couplings	Each	2.25							

Fig. 357 COUPLINGS—(Not Illustrated)

Size	Inches	¼	½	¾	1	1½	2	2½	3	3½	4	5	6
Fig. 357	Each	.20	.25	.30	.35	.40	.55	.70	.90	1.50	2.40	3.25	4.25

Reducing sizes not carried in stock. Prices on application.

MALLEABLE IRON RAILING FITTINGS

ELBOWS



Fig. 358

ELBOWS SIDE OUTLET



Fig. 359

TEES



Fig. 360

TEES SIDE OUTLET



Fig. 361

CROSSES



Fig. 362

CROSSES SIDE OUTLET

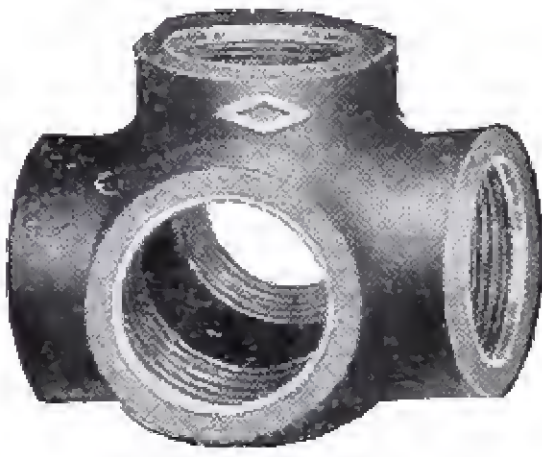


Fig. 363

BALL ORNAMENTS



Fig. 364

FLOOR FLANGES



Fig. 365

Size.....Inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Fig. 358—Elbows.Each	.15	.18	.20	.35	.45	.72	1.60	2.25
Fig. 359—Elbows, S. O.....Each	.20	.23	.25	.40	.50	.80	1.75	2.50
Fig. 360—Tees.....Each	.20	.23	.25	.40	.50	.75	1.75	2.50
Fig. 361—Tees S. O.....Each	.30	.33	.35	.45	.55	.90	1.90	2.60
Fig. 362—Crosses.....Each	.30	.33	.35	.45	.58	1.00	1.80	2.60
Fig. 363—Crosses S. O.....Each	.35	.38	.40	.50	.65	1.35	2.00	2.75
Fig. 364—Ball Ornaments.....Each	.16	.18	.20	.25	.35	.90	1.35	2.00
Fig. 365—Floor Flanges.....Each	.14	.15	.15	.20	.28	.30		

For Galvanized Fittings Double Above Lists.
All Fittings will be Furnished Right Hand unless otherwise ordered.

MALLEABLE IRON ADJUSTABLE RAILING FITTINGS

ELBOWS



Fig. 366

TEES



Fig. 367

STAIR TEES



Fig. 368

CROSSES



Fig. 369

STAIR CROSSES

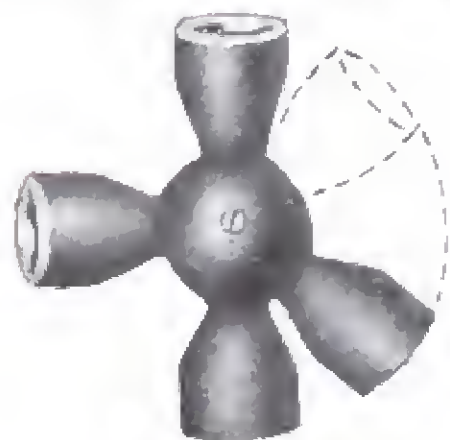


Fig. 370

LANDING TEES



Fig. 371

LANDING CROSSES



Fig. 372

FLANGES



Fig. 373

Size	Inches	1	1¼	1½	2
Fig. 366—Elbows.....	Each	1.10	1.25	1.70	2.25
Fig. 367—Tees.....	Each	1.30	1.50	2.00	2.50
Fig. 368—Stair Tees.....	Each	1.30	1.60	2.15	2.50
Fig. 369—Crosses.....	Each	1.50	1.75	2.35	2.75
Fig. 370—Stair Crosses.....	Each	1.50	1.85	2.50	2.75
Fig. 371—Landing Tees.....	Each	.90	1.10	1.50	2.15
Fig. 372—Landing Crosses.....	Each	1.00	1.20	1.60	2.40
Fig. 373—Flanges.....	Each	1.65	1.75	1.90	2.50

For Galvanized Fittings Double Above Lists.

All openings are Tapped Right Hand. Fittings ordered Tapped otherwise will be Charged at Special Prices.

MALLEABLE IRON 45° RAILING FITTINGS



Size.....	Inches	1	1¼	1½	2	2½	3
Fig. 374—Elbow.....	Each	.40	.70	.90	1.50		
Fig. 374A—Elbow, Side Outlet (not shown).....	Each	.50	.80	1.00	1.65		
Fig. 375—Elbow.....	Each	.45	.75	.95	1.60		
Fig. 375A—Elbow, Side Outlet (not shown).....	Each	.55	.85	1.05	1.75		
Fig. 376—Tee.....	Each	.50	.80	1.00	1.65		
Fig. 376A—Tee, Side Outlet (not shown).....	Each	.60	.90	1.10	1.75		
Fig. 377—Cross.....	Each	.60	.90	1.10	1.75		
Fig. 377A—Cross, Side Outlet (not shown).....	Each	.80	1.10	1.25	2.00		
Fig. 378—Floor Flange.....	Each	.40	.50	.60	.70	1.50	2.00

All Fittings will be furnished Right Hand unless otherwise ordered. Fittings ordered Tapped otherwise will be charged at Special Prices.

REDUCING SIZES OF RAILING FITTINGS

Elbows	Elbows Side Outlet	Tees	Tees Side Outlet	Crosses
1 x ¾ 1¼ x 1 1½ x 1 1½ x 1¼	1 x ¾ x ¾ 1 x 1 x ¾ 1¼ x 1 x 1 1¼ x 1¼ x 1	¾ x ¾ x 1 1 x 1 x ¾ 1 x 1 x 1¼ 1 x 1 x 1½	1 x 1 x ½ x ½ 1 x 1 x ¾ x ¾ 1¼ x 1¼ x 1 x 1 1½ x 1½ x 1¼ x 1¼	1 x 1 x ¾ x ¾ 1¼ x 1¼ x 1 x 1 1½ x 1½ x 1 x 1 1½ x 1½ x 1¼ x 1¼
2 x 1¼ 2 x 1½ 2½ x 2 3 x 2½	1½ x 1 x 1 1½ x 1¼ x 1¼ 1½ x 1½ x 1¼ 2 x 1¼ x 1¼	1¼ x 1¼ x 1 1¼ x 1¼ x 1½ 1¼ x 1¼ x 2 1½ x 1½ x 1	2 x 2 x 1¼ x 1¼ 2 x 2 x 1½ x 1½ 2½ x 2½ x 2 x 2 3 x 3 x 2½ x 2½	2 x 2 x 1¼ x 1¼ 2 x 2 x 1½ x 1½ 2½ x 2½ x 2 x 2 3 x 3 x 2½ x 2½
	2 x 1½ x 1½ 2½ x 2 x 2 3 x 2½ x 2½	1½ x 1½ x 1¼ 1½ x 1½ x 2 2 x 2 x 1¼ 2 x 2 x 1½		
		2 x 2 x 2½ 2½ x 2½ x 2 2½ x 2½ x 3 3 x 3 x 2½		

Prices for Reducing sizes on application.

BRASS FITTINGS**IRON PIPE THREAD**

125 Pounds Working Pressure

90° ELBOWS

Fig. 379

45° ELBOWS

Fig. 380

DROP ELBOWS

Fig. 381

Fig. 379. 90° ELBOWS

Size.....Inches	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Fig. 379—Rough.....Each	.12	.15	.20	.28	.40	.63	.90	1.20	2.00	3.50	6.00	8.00	10.00
Fig. 379—Finished.....Each	.30	.35	.45	.56	.75	1.10	1.55	2.00	3.00	5.50	9.00	14.00	17.50
Fig. 379—N.P.....Each	.36	.42	.53	.65	.87	1.25	1.75	2.25	3.35	6.15	10.00	16.00	20.00

Fig. 379A. 90° REDUCING ELBOWS

Size.....Inches	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Fig. 379A—Rough.....Each	.19	.25	.35	.50	.80	1.10	1.50	2.50	4.25	7.50	10.00	12.50
Fig. 379A—Finished.....Each	.44	.55	.70	.95	1.40	1.90	2.50	3.75	6.75	11.25	17.50	22.00
Fig. 379A—N.P.....Each	.52	.65	.82	1.10	1.60	2.15	2.85	4.15	7.60	12.50	20.00	25.00

Fig. 380. 45° ELBOWS

Size.....Inches	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Fig. 380—Rough.....Each	.16	.20	.25	.31	.40	.63	.90	1.20	2.00	3.50	6.00	8.00	10.00
Fig. 380—Finished.....Each	.38	.45	.55	.66	.85	1.23	1.70	2.20	3.25	6.00	9.75	15.50	19.50
Fig. 380—N.P.....Each	.45	.53	.65	.78	1.00	1.43	1.95	2.55	3.65	6.85	11.00	18.00	22.50

Fig. 381. DROP ELBOWS

Size.....Inches	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Fig. 381—Rough.....Each	.35	.45	.65	1.05	1.50	2.00	3.40
Fig. 381—Finished.....Each	.85	1.05	1.40	2.00	2.80	3.60	5.40
Fig. 381—N. P.....Each	1.00	1.25	1.65	2.30	3.20	4.10	6.00

ELBOWS WITH SIDE OUTLET (Not Illustrated)

Size.....Inches	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Rough.....Each	.45	.60	.85	1.20	1.90	2.75	3.60	6.00	10.50	18.00
Finished.....Each	1.05	1.35	1.70	2.25	3.30	4.70	6.00	9.00	16.50	27.00
N. P.....Each	1.25	1.60	2.00	2.60	3.75	5.35	6.80	10.00	18.50	30.00

Elbows tapped Right and Left, add 25% to above lists.

Elbows, reducing more than two sizes, add 25% to reducing list.

BRASS FITTINGS
IRON PIPE THREAD
125 POUNDS WORKING PRESSURE

STREET ELBOWS



Fig. 382

TEES



Fig. 383

DROP TEES



Fig. 384

Fig. 382 STREET ELBOWS

Size.....Inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Fig. 382—Rough.....Each	.25	.27	.33	.48	.63	.85	1.50	2.00	3.25	6.00	10.00
Fig. 382—Finished.....Each	.47	.52	.63	.83	1.08	1.45	2.30	3.00	4.50	8.50	13.75
Fig. 382—N. P.....Each	.54	.60	.73	.95	1.23	1.65	2.55	3.35	4.90	9.35	15.00

Fig. 383 TEES

Size.....Inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Fig. 383—Rough.....Each	.17	.21	.28	.40	.55	.85	1.25	1.70	2.80	5.00	8.50	11.00	14.00
Fig. 383—Finished.....Each	.42	.49	.63	.80	1.05	1.50	2.15	2.80	4.20	7.75	12.75	19.50	24.50
Fig. 383—N. P.....Each	.50	.58	.75	.93	1.22	1.70	2.45	3.15	4.65	8.65	14.00	22.30	28.00

Fig. 383A REDUCING TEES

Size.....Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Fig. 383A—Rough.....Each	.25	.35	.50	.70	1.05	1.55	2.10	3.50	6.25	10.50	14.00	17.50
Fig. 383A—Finished.....Each	.60	.77	1.00	1.30	1.85	2.65	3.50	5.25	9.75	15.80	24.50	30.50
Fig. 383A—N. P.....Each	.72	.90	1.15	1.50	2.10	3.00	3.95	5.85	10.90	17.50	28.00	35.00

Fig. 384 DROP TEES

Size.....Inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Fig. 384—Rough.....Each	.43	.57	.80	1.25	1.85	2.50	4.20
Fig. 384—Finished.....Each	1.13	1.37	1.80	2.55	3.65	4.70	7.00
Fig. 384—N. P.....Each	1.33	1.62	2.15	2.95	4.25	5.45	7.90

TEES WITH SIDE OUTLET Not Illustrated

Size.....Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Rough.....Each	1.20	1.65	2.50	3.75	5.00	8.50
Finished.....Each	2.05	2.70	3.90	5.70	7.40	11.50
N. P.....Each	2.35	3.05	4.35	6.35	8.20	12.50

Tees Reducing More Than Two Sizes Add 25% to Reducing List.

BRASS FITTINGS

IRON PIPE THREAD

125 Pounds Working Pressure

CROSSES



Fig. 385

RETURN BENDS



Fig. 386 Close



Fig. 387 Open

Y BRANCHES



Fig. 388

Fig. 385. CROSSES

Size	Inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Fig. 385—Rough ... Each		.25	.30	.40	.55	.80	1.25	1.80	2.40	4.00	7.00	12.00	16.00	20.00
Fig. 385—Finished. Each		.60	.70	.90	1.10	1.50	2.20	3.10	4.00	6.00	11.00	18.00	28.00	35.00
Fig. 385—N.P. Each		.72	.84	1.05	1.30	1.75	2.50	3.50	4.50	6.70	12.30	20.00	32.00	40.00

Fig. 385 A REDUCING CROSSES

Size	Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Fig. 385 A—Rough... Each		.38	.50	.70	1.00	1.55	2.25	3.00	5.00	8.75	15.00	20.00	25.00
Fig. 385 A—Finished... Each		.88	1.10	1.40	1.85	2.75	3.85	5.00	7.50	13.75	22.50	35.00	44.00
Fig. 385 A—N.P. Each		1.05	1.30	1.65	2.15	3.15	4.35	5.70	8.30	15.40	25.00	40.00	50.00

Fig. 386. RETURN BENDS—CLOSE

Size	Inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Fig. 386—Rough... Each		.55	.70	1.00	1.25	1.80	2.50	4.25	7.00	10.00
Fig. 386—Finished... Each		1.30	1.55	2.05	2.65	3.75	4.90	7.25	13.00	19.00
Fig. 386—N.P... Each		1.55	1.85	2.40	3.10	4.40	5.70	8.25	15.00	22.00

Fig. 387. RETURN BENDS—OPEN

Size	Inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Fig. 387—Rough... Each		.60	.80	1.10	1.40	2.15	3.00	4.75	8.25	11.00
Fig. 387—Finished... Each		1.35	1.65	2.15	2.80	4.10	5.40	7.75	14.25	20.00
Fig. 387—N.P... Each		1.60	1.95	2.50	3.25	4.75	6.20	8.75	16.25	23.00

Fig. 388. Y BENDS

Size	Inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Fig. 388—Rough... Each		.60	.75	1.10	1.65	2.50	3.30	5.50	9.50	16.00	21.00	26.00
Fig. 388—Finished... Each		1.35	1.60	2.15	3.05	4.45	5.70	8.50	15.50	25.00	33.00	41.00
Fig. 388—N.P... Each		1.60	1.90	2.50	3.50	5.10	6.50	9.50	17.50	28.00	37.00	46.00

Crosses, reducing more than two sizes, add 25% to reducing list.

For Right and Left Return Bends, add 25% to lists.

BRASS FITTINGS

IRON PIPE THREAD

125 Pounds Working Pressure

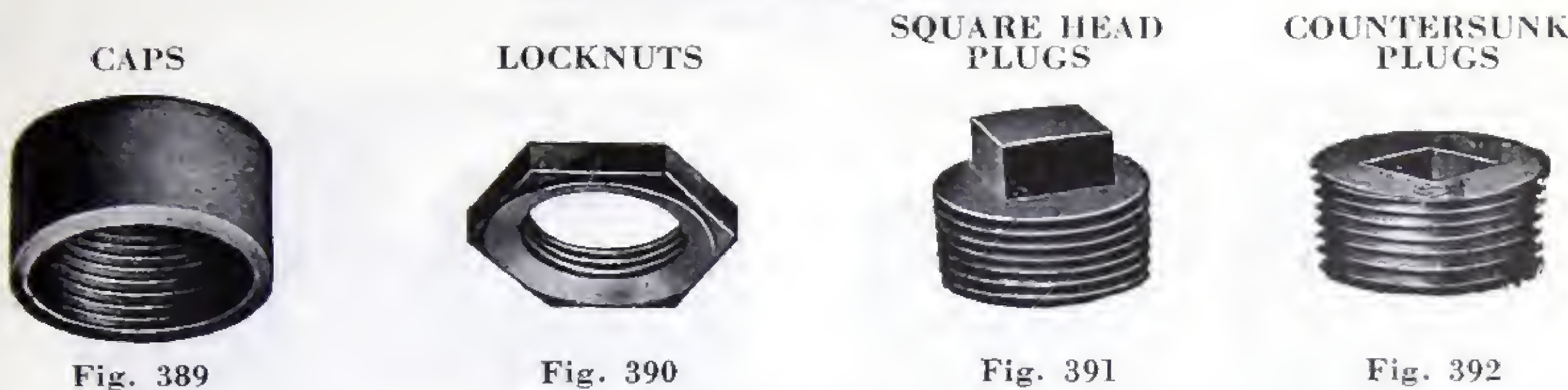


Fig. 389 CAPS

Size.....Inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Fig. 389—Rough.....Each	.10	.13	.16	.20	.30	.42	.60	.80	1.25	2.50	3.50	5.50	7.00
Fig. 389—Finished.....Each	.20	.25	.31	.40	.55	.77	1.10	1.50	2.25	4.00	5.50	8.00	10.00
Fig. 389—N.P.....Each	.23	.29	.36	.47	.63	.89	1.25	1.75	2.60	4.50	6.15	8.85	11.00

Fig. 390. LOCKNUTS

Size.....Inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Fig. 390—Rough.....Each	.10	.10	.12	.15	.20	.28	.40	.55	.80	1.75	2.75	4.00	5.00
Fig. 390—Finished.....Each	.24	.25	.32	.40	.50	.65	.85	1.10	1.60	3.25	4.75	6.50	8.00
Fig. 390—N.P.....Each	.29	.30	.39	.48	.60	.77	1.00	1.30	1.85	3.75	5.40	7.35	9.00

Fig. 391. SQUARE HEAD PLUGS

Size.....Inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Fig. 391—Rough.....Each	.08	.10	.12	.15	.20	.30	.45	.60	.95	1.50	2.25	3.75	5.00
Fig. 391—Finished.....Each	.23	.30	.37	.43	.55	.75	1.00	1.30	1.95	3.00	4.25	6.25	8.00
Fig. 391—N.P.....Each	.28	.37	.45	.52	.67	.90	1.20	1.55	2.30	3.50	4.90	7.10	9.00

BOILER PLUGS (Not Illustrated)

Size.....Inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Rough.....Each	.18	.22	.30	.45	.80	1.20	1.90	3.00	4.50	7.50	10.00
Finished.....Each	.43	.50	.65	.90	1.35	1.90	2.90	4.50	6.50	10.00	13.00
N. P.....Each	.51	.59	.77	1.05	1.55	2.15	3.25	5.00	7.15	10.85	14.00

SOLID PLUGS (Not Illustrated)

Size.....Inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Rough.....Each	.18	.22	.30	.45	.80	1.20	1.90	3.00	4.50	7.50	10.00
Finished.....Each	.43	.50	.65	.90	1.35	1.90	2.90	4.50	6.50	10.00	13.00
N. P.....Each	.51	.59	.77	1.05	1.55	2.15	3.25	5.00	7.15	10.85	14.00

Fig. 392. COUNTER SUNK PLUGS

Size.....Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Fig. 392—Rough.....Each	.22	.30	.45	.65	.90	1.40
Fig. 392—Finished.....Each	.42	.55	.80	1.15	1.55	2.25
Fig. 392—N. P.....Each	.49	.63	.92	1.30	1.75	2.55

BRASS FITTINGS

IRON PIPE THREAD

125 Pounds Working Pressure

COUPLINGS R. H. COUPLINGS R. & L. REDUCING COUPLINGS



Fig. 383

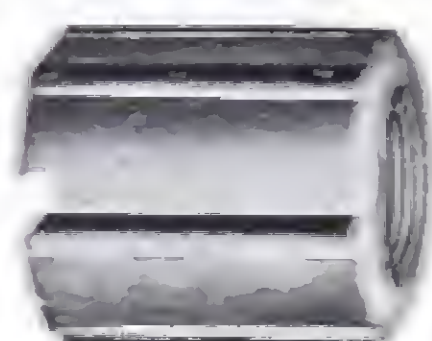


Fig. 393



Fig. 395



Fig. 396

Fig. 383 COUPLINGS R. H.

Size	Inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4
Fig. 383—Rough	Each	14	21	27	35	47	55	80	1 00	1 50	2 50	3 50	5 25	7 00
Fig. 383—Finished	Each	14	21	26	34	46	54	79	1 00	1 50	2 35	3 40	5 25	7 50
Fig. 383—N F	Each	24	33	42	53	72	1 00	1 55	1 80	2 50	4 50	6 50	11 25	14 25

Fig. 393 COUPLINGS R. & L.

Size	Inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	4
Fig. 393—Rough	Each	11	17	22	30	45	50	70	1 00	1 30	2 00	2 30	4 50
Fig. 393—Finished	Each	11	17	21	29	44	49	69	1 35	1 85	2 30	3 00	7 50
Fig. 393—N F	Each	37	44	55	67	82	1 30	1 85	2 25	3 35	5 25	8 50	14 50

Fig. 395 REDUCING COUPLINGS

Size	Inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4
Fig. 395—Rough	Each	15	20	26	40	50	80	1 10	1 75	2 75	4 00	6 00	8 00
Fig. 395—Finished	Each	15	20	25	39	49	79	1 05	1 70	2 70	4 00	6 00	8 50
Fig. 395—N F	Each	42	53	65	87	1 20	1 75	2 15	3 30	5 30	8 00	14 00	24 00

Fig. 396 BUSHINGS

Size	Inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4
Fig. 396—Rough	Each	10	17	23	32	55	50	70	1 00	1 50	2 50	3 75	5 00
Fig. 396—Finished	Each	10	17	22	31	54	49	69	1 00	1 40	2 40	3 75	5 00
Fig. 396—N F	Each	20	22	32	35	122	1 15	1 85	2 25	3 50	5 15	7 30	9 00

FACED BUSHINGS (Not Illustrated)

Size	Inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$	4
Rough	Each	12	15	19	25	44	42	47	1 25	1 85	3 00	4 75	6 25

Reducing Couplings, reducing more than two sizes, add 25% to reducing fee.
Bushings reducing more than two sizes, add 25% to fee.

BRASS FITTINGS

125 Pounds Working Pressure

UNIONS



Fig. 397



Fig. 398 HEXAGON

Fig. 397

Size.....Inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Fig. 397 Semi-Fin'd Ea.	.45	.55	.75	.95	1.30	1.75	2.50	3.00	4.50	8.25	12.75	22.50	30.00
Fig. 397 Finished...Each	.50	.60	.85	1.05	1.40	1.90	2.75	3.25	5.00	9.00	14.00	25.00	33.00
Fig. 397 N. P.....Each	.60	.72	1.02	1.26	1.68	2.28	3.30	3.90	6.00	10.80	16.80	30.00	39.60

Fig. 398. HEXAGON

Size.....Inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Fig. 398 Rough.....Each	.60	.65	.85	1.10	1.50	2.00	2.80	3.60	5.25	9.00	14.00	22.50	30.00
Fig. 398 Finished...Each	.85	.90	1.15	1.45	1.90	2.50	3.35	4.25	6.00	10.00	16.00	25.00	33.00
Fig. 398 N.P.....Each	1.02	1.08	1.38	1.74	2.28	3.00	4.02	5.10	7.29	12.00	19.20	30.00	39.60

FLANGE UNIONS

ROUGH



Fig. 399

Size.....Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6
Fig. 399.....Each	4.00	4.50	5.00	5.50	7.00	9.00	11.50	15.00	18.00	22.00	27.00	35.00	45.00
Dia. of Flanges.....Inches	$2\frac{13}{16}$	$2\frac{7}{8}$	$3\frac{1}{4}$	$3\frac{3}{4}$	$4\frac{5}{8}$	$5\frac{1}{2}$	6	$6\frac{3}{4}$	$7\frac{1}{2}$	8	$8\frac{5}{8}$	$9\frac{3}{8}$	$10\frac{5}{8}$
Number of Bolts.....	3	3	4	4	4	4	4	4	4	5	5	5	6

BRASS NIPPLES

IRON PIPE SIZES



Fig. 407. CLOSE



Fig. 408. Short and Long.

Fig. 407. CLOSE

Size.....Inches	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	6
Length Inches	3/4	7/8	1	1 1/8	1 3/8	1 1/2	1 5/8	1 3/4	2	2 1/2	2 1/2	2 3/4	3	3	3 1/2	3 1/2
Each.....	.11	.13	.15	.23	.28	.37	.60	.70	1.00	1.70	2.50	4.00	4.75	5.50	8.50	11.50

Fig. 408. Short and Long.

Size, inches		Length, inches									
		1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2	6
1/8.....	Each	.13	.15	.17	.19	.21	.23	.25	.27	.29	.31
1/4.....	Each	.16	.19	.22	.25	.28	.31	.34	.37	.40	.43
3/8.....	Each	.19	.23	.27	.31	.35	.39	.43	.47	.51	.55
1/2.....	Each	.25	.30	.35	.40	.45	.50	.55	.60	.65	.70
3/4.....	Each	....	.35	.42	.49	.56	.63	.70	.77	.84	.91
1.....	Each	....	.44	.53	.62	.71	.80	.89	.98	1.07	1.16
1 1/4.....	Each	....	....	.75	.88	1.01	1.14	1.27	1.40	1.53	1.66
1 1/2.....	Each	....	....	.90	1.05	1.20	1.35	1.50	1.65	1.80	1.95
2.....	Each	....	....	.20	1.40	1.60	1.80	2.00	2.20	2.40	2.60
2 1/2.....	Each	....	....	....	2.00	2.30	2.60	2.90	3.20	3.50	3.80
3.....	Each	....	....	....	2.90	3.30	3.70	4.10	4.50	4.90	5.30
3 1/2.....	Each	....	....	....	....	....	5.40	6.00	6.60	7.20	7.80
4.....	Each	....	....	....	....	....	6.15	6.85	7.55	8.25	8.95
4 1/2.....	Each	....	....	....	....	....	7.20	8.05	8.90	9.75	10.60
5.....	Each	....	....	....	....	....	....	10.60	11.65	12.70	13.75
6.....	Each	....	....	....	....	....	....	14.10	15.40	16.70	18.00

For finished Brass Nipples, longer than close, add 25% to above lists.

BRASS NIPPLES

HEXAGON CENTRE—RIGHT AND LEFT



Fig. 409

Size.....Inches	1/2	3/4	1	1 1/4	1 1/2	2
Fig. 409—Rough.....Each	.30	.30	.45	.75	1.00	1.25
Fig. 409—Finished.....Each	.45	.45	.65	1.13	1.50	1.88
Fig. 409—N.P.....Each	.60	.60	.80	1.33	1.70	2.10

BRASS EXTRA HEAVY FITTINGS

250 Pounds Working Pressure

ELBOWS

45° ELBOWS

TEES

CROSSES



Fig. 410



Fig. 411



Fig. 412



Fig. 413

ROUGH

Size.....Inches	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Fig. 410—Elbows.....Each	.33	.45	.65	1.00	1.50	2.25	3.00	4.50	8.00	11.25	16.00	22.00
Fig. 410A—Elbows, Reducing.....Each		.55	.75	1.20	1.80	2.60	3.50	5.25	9.00	13.00	19.00	25.00
Fig. 411—Elbows, 45°.....Each		.55	.75	1.10	1.65	2.50	3.25	4.50	8.00	11.25	16.00	22.00
Fig. 412—Tees.....Each	.45	.60	.90	1.35	2.00	3.00	4.00	6.00	10.75	15.00	22.00	30.00
Fig. 412A—Tees, Reducing.....Each		.70	1.05	1.55	2.30	3.50	4.50	6.75	12.00	17.00	25.00	35.00
Fig. 413—Crosses.....Each			1.30	2.00	3.00	4.50	6.00	9.00	16.00	22.50	28.00	37.00
Fig. 413A—Crosses, Reducing.....Each			1.50	2.40	3.60	5.25	7.00	10.50	18.00	26.00	32.00	42.00
Fig. 414—Return Bends, Close.....Each			1.65	2.50	3.50	5.00	7.00	10.00	16.00	22.00	...	40.00
Fig. 415—Return Bends, Open.....Each				2.75	4.00	5.50	8.00	11.00	18.00	25.00	...	45.00
Fig. 416—Y Branches.....Each			1.50	2.50	3.50	5.50	7.25	11.00	19.00	27.00	33.00	45.00
Fig. 417—Couplings.....Each	.40	.50	.70	1.10	1.65	2.25	3.00	4.50	7.00	10.00	13.00	17.00

FINISHED

Size.....Inches	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Fig. 410—Elbows.....Each	.73	.95	1.25	1.75	2.50	3.50	4.50	6.25	10.50	14.75	23.50	31.00
Fig. 410A—Elbows, Reducing.....Each		1.15	1.50	2.10	3.00	4.10	5.25	7.50	12.00	17.25	28.00	36.00
Fig. 411—Elbows, 45°.....Each		1.15	1.50	2.00	2.85	4.00	5.10	6.75	11.00	15.50	25.00	33.00
Fig. 412—Tees.....Each	1.00	1.25	1.70	2.35	3.35	4.65	6.00	8.35	14.00	19.75	32.00	42.00
Fig. 412A—Tees, Reducing.....Each		1.50	2.05	2.80	4.00	5.50	7.00	9.75	16.00	23.00	37.00	50.00
Fig. 413—Crosses.....Each			2.50	3.50	5.00	7.00	9.00	12.50	21.00	29.50	43.00	55.00
Fig. 413A—Crosses, Reducing.....Each			3.00	4.25	6.00	8.25	10.75	15.00	24.00	35.00	50.00	64.00
Fig. 414—Return Bends, Close.....Each			2.85	4.00	5.50	7.50	10.00	13.50	21.00	29.00	...	58.00
Fig. 415—Return Bends, Open.....Each				4.25	6.00	8.00	11.00	14.50	23.00	32.00	...	63.00
Fig. 416—Branches.....Each			2.70	4.00	5.50	8.00	10.25	14.50	24.00	34.00	48.00	63.00
Fig. 417—Couplings.....Each	.75	.90	1.15	1.70	2.40	3.20	4.15	5.85	9.00	13.00	18.50	24.00

HYDRAULIC BRASS FITTINGS

For Pressure up to 5,000 Pounds

Size.....Inches	1/2	3/4	1	1 1/4	1 1/2	2
Fig. 418—Elbows.....Each	3.65	4.65	6.50	9.75	14.00	23.00
Fig. 419—45° Elbows.....Each	3.45	4.20	5.85	8.75	11.75	.....
Fig. 420—Tees.....Each	5.35	7.00	9.90	15.25	20.00	32.00

BRASS EXTRA HEAVY FITTINGS

250 Pounds Working Pressure

HEXAGON UNIONS

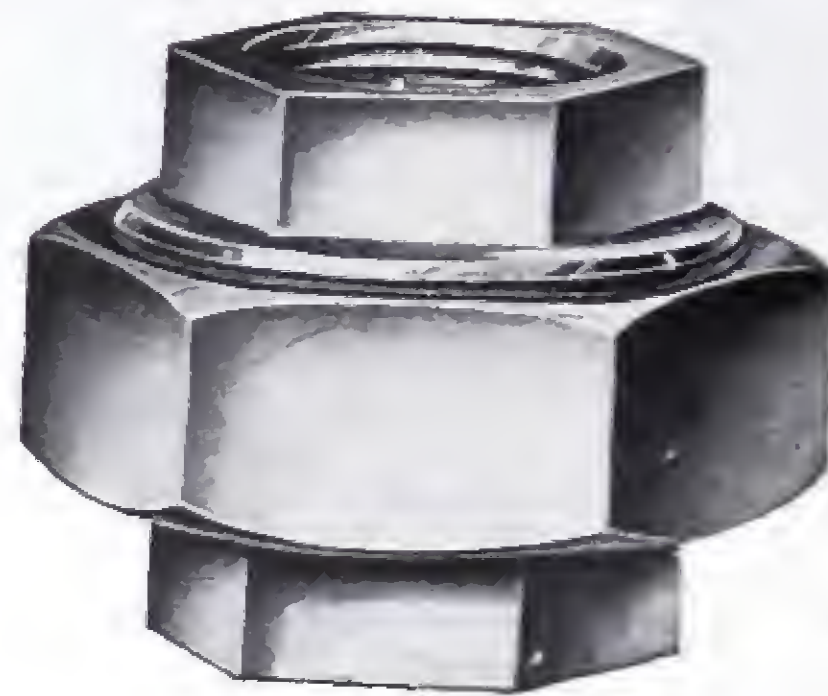


Fig. 421

SizeInches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{4}$	3
Fig. 421—RoughEach	1.10	1.40	1.60	1.85	3.00	4.00	5.25	7.50	10.00	15.00
Fig. 421—FinishedEach	1.20	1.55	1.75	2.05	3.30	4.40	5.75	8.25	11.00	16.50

FLANGE UNIONS

ROUGH



Fig. 422

SizeInches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6
Fig. 422Each	7.50	8.50	11.00	13.00	16.00	18.00	24.00	27.00	30.00	37.00	48.00	60.00
Dia. of Flanges. in.	$3\frac{1}{4}$	$3\frac{5}{8}$	$4\frac{1}{8}$	$4\frac{3}{8}$	$5\frac{3}{8}$	6	$6\frac{3}{4}$	$7\frac{1}{2}$	8	$8\frac{3}{4}$	$9\frac{3}{8}$	$10\frac{7}{8}$
Number of Bolts	4	4	4	4	5	5	6	6	7	8	8	9

Brass Flange Unions are furnished with Iron Bolts unless otherwise specified.

STANDARD BRASS FLANGED FITTINGS

125 Pounds Working Pressure

ELBOWS



Fig. 423

TEES

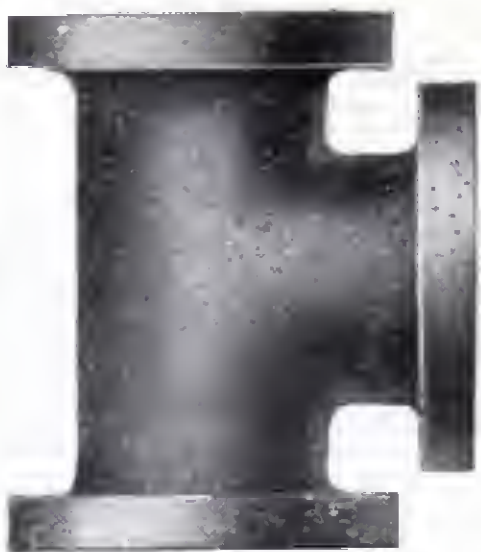


Fig. 424

Size.....Inches	2	2½	3	3½	4	4½	5	6
Fig. 423—90° Elbows, Faced.....Each	25.00	33.75	43.75	58.75	68.00	78.00	93.00	123.00
Fig. 423—90° Elbows, Faced and Drilled Each	26.00	35.00	45.00	60.00	70.00	80.00	95.00	125.00
Fig. 424—45° Elbows, Faced.....Each	27.50	37.25	47.75	63.75	73.00	83.00	98.00	133.00
Fig. 424—45° Elbows, Faced and DrilledEach	28.50	38.50	49.00	65.00	75.00	85.00	100.00	135.00
Fig. 424—Tees, Faced.....Each	37.50	50.75	65.75	88.25	102.00	117.00	137.00	187.00
Fig. 424—Tees, Faced and Drilled.....Each	39.00	52.50	67.50	90.00	105.00	120.00	140.00	190.00
Fig. 426—Crosses, Faced.....Each	50.00	67.50	87.50	117.50	136.00	156.00	186.00	246.00
Fig. 426—Crosses, Faced and Drilled.....Each	52.00	70.00	90.00	120.00	140.00	160.00	190.00	250.00

Reducing sizes to order at special prices.
For Drilling Templates, see page 64.

EXTRA HEAVY BRASS FLANGED FITTINGS

250 Pounds Working Pressure

Size.....Inches	1	1¼	1½	2	2½	3	3½	4	4½	5	6
Fig. 427—90° Elbows, Faced Each	13.00	15.00	20.00	25.00	33.75	43.75	58.75	68.00	78.00	93.00	123.00
Fig. 427—90° Elbows, Faced and Drilled.....Each	14.00	16.00	21.00	26.00	35.00	45.00	60.00	70.00	80.00	95.00	125.00
Fig. 428—45° Elbows, Faced Each	14.00	16.00	22.00	27.50	37.25	47.75	63.75	73.00	83.00	98.00	133.00
Fig. 428—45° Elbows, Faced and Drilled.....Each	15.00	17.00	23.00	28.50	38.50	49.00	65.00	75.00	85.00	100.00	135.00
Fig. 429—Tees, Faced.....Each	19.50	22.50	30.00	37.50	50.75	65.75	88.25	102.00	117.00	137.0	187.00
Fig. 429—Tees, Faced and Drilled.....Each	21.00	24.00	31.50	39.00	52.50	67.50	90.00	105.00	120.00	140.00	190.00
Fig. 430—Crosses, Faced.....Each	26.00	30.00	40.00	50.00	67.50	87.50	117.50	136.00	156.00	186.00	246.00
Fig. 430—Crosses, Faced and Drilled.....Each	28.00	32.00	42.00	52.00	70.00	90.00	120.00	140.00	160.00	190.00	250.00

Reducing sizes to order at special prices.
For Drilling Templates, see page 79.

STANDARD BRASS FLANGES

125 Pounds Working Pressure

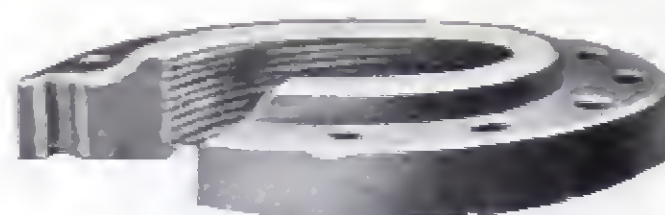


Fig. 431

Size and Diameter	Inches	1x4	1½x4½	1½x5	2x6	2½x7	3x7½
Fig. 431—Faced	Each	5.75	6.75	8.75	10.75	12.50	15.50
Fig. 431—Faced and Drilled	Each	6.00	7.00	9.00	11.00	13.00	16.00
Size and Diameter	Inches	3½x8½	4x9	4½x9½	5x10	6x11	
Fig. 431—Faced	Each	19.25	24.25	26.75	29.00	36.50	
Fig. 431—Faced and Drilled	Each	20.00	25.00	27.50	30.00	37.50	

For Dimensions and Drilling Templates, see page 64.

EXTRA HEAVY BRASS FLANGES

250 Pounds Working Pressure

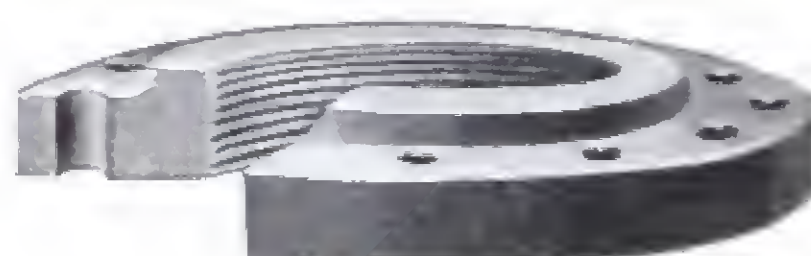


Fig. 432

Size and Diameter	Inches	1x4½	1½x5	1½x6	2x6½	2½x7½	3x8½
Fig. 432—Faced	Each	5.75	6.75	8.75	10.75	12.50	15.50
Fig. 432—Faced and Drilled	Each	6.00	7.00	9.00	11.00	13.00	16.00
Size and Diameter	Inches	3½x9	4x10	4½x10½	5x11	6x12½	
Fig. 432—Faced	Each	19.25	24.25	26.75	29.00	36.50	
Fig. 432—Faced and Drilled	Each	20.00	25.00	27.50	30.00	37.50	

For Dimensions and Drilling Templates, see page 79.

BRASS RAILING FITTINGS

IRON PIPE SIZES

ELBOWS ELBOWS 45° ELBOWS TEES TEES
SIDE OUTLET SIDE OUTLET



Fig. 433



Fig. 434



Fig. 435



Fig. 436

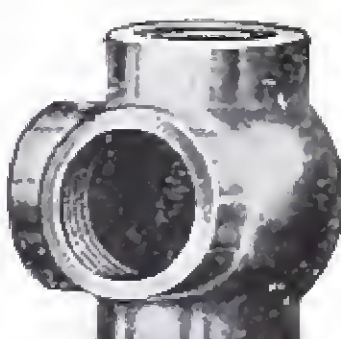


Fig. 437

45° TEES CROSSES 45° CROSSES CROSSES ORNAMENTS
SIDE OUTLET SIDE OUTLET ACORN PATTERN



Fig. 438



Fig. 439



Fig. 440



Fig. 441

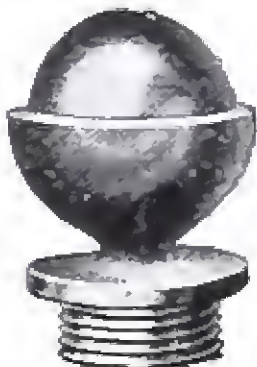


Fig. 442



Fig. 443

FINISHED BRASS RAILING FITTINGS

Size,.....Inches	1/2	3/4	1	1 1/4	1 1/2	2
Fig. 433—Elbows.....Each	.40	.60	.80	1.20	1.60	2.50
Fig. 434—Elbows, side outlet.....Each	.75	1.00	1.45	1.70	2.00	3.00
Fig. 435—Elbows 45°.....Each	....	....	1.50	1.70	2.15	3.00
Fig. 436—Tees.....Each	.60	.85	1.10	1.70	2.00	3.00
Fig. 437—Tees, side outlet.....Each	1.05	1.25	1.50	2.00	2.40	3.50
Fig. 438—Tees, 45°.....Each	....	....	1.55	2.05	2.40	3.35
Fig. 439—Crosses.....Each	1.05	1.25	1.50	2.00	2.40	3.50
Fig. 440—Crosses, 45°.....Each	....	....	1.60	2.20	2.60	3.40
Fig. 441—Crosses, side outlet.....Each	1.20	1.45	1.70	2.25	3.00	4.00
Fig. 442—Ornament, acorn pattern.....Each	.75	.90	1.00	1.35	1.75	2.50
Fig. 442A—Ornament, ball (not shown).....Each	.75	.90	1.00	1.35	1.75	2.50
Fig. 443—Flanges.....Each	.75	.90	1.00	1.35	1.75	2.50

Railing Fittings, tapped right and left, add 25% to above lists.

When ordering fittings having right and left hand outlets, state which are required right hand, and which left hand.

BRASS RAILING FITTINGS

BRACKETS



Fig. 444



Fig. 445



Fig. 446

Brass Railing Brackets are made in various styles and in sizes suitable for Brass Tube from 1 inch to 3 inches inclusive.

STANDARDS



Fig. 447



Fig. 448

Brass Standards can be furnished in any length desired, and for any size Tube or Pipe from 1 inch to 3 inches inclusive.

SCROLL ENDS



Fig. 449

Scroll ends can be furnished from 1½ inches to 3 inches inclusive.

Prices on application.

FLOOR AND CEILING PLATES

B. and C.
FLOOR AND CEILING PLATE



Fig. 450

STAMPED STEEL
FLOOR PLATE



Fig. 451

Fig. 450 B & C FLOOR AND CEILING PLATE

Size.....Inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Plated.....Each	.27	.28	.32	.35	.38	.45	.65	.80	1.00	1.25

Fig. 451 STAMPED STEEL FLOOR PLATE

Size.....Inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Plated.....Each	.12	.12	.14	.18	.22	.26	.35	.45

CAST IRON
FLOOR PLATE



Fig. 452

CAST IRON
CEILING PLATE



Fig. 453

Fig. 452 C. I. FLOOR PLATE

Size.....Inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Plated.....Each	.12	.12	.14	.18	.22	.26	.35	.45

Fig. 453 C.I. CEILING PLATE

Size.....Inches	1/2	3/4	1	1 1/4	1 1/2	2
Plated.....Each	.14	.17	.20	.23	.30	.35

HOOK PLATES—EXPANSION PLATES

CAST IRON



Fig. 455



Fig. 456

Figs. 454 and 455. HOOK PLATES

Number of Hooks.....	1	2	3	4	5	6
For 1-in. Pipe, 2½ in. Centre to Centre	.09	.18	.23	.26	.32	.38
For 1¼-in. Pipe, 3 in. Centre to Centre	.10	.21	.27	.32	.41	.52
For 1½-in. Pipe, 3½ in. Centre to Centre	.15	.28	.43	.58	.72	.88
For 2-in. Pipe, 4½ in. Centre to Centre	.22	.43	.65	.90	1.15	1.35

Figs. 456 and 457. EXPANSION PLATES

Number of Hooks.....	1	2	3	4	5	6
For 1-in. Pipe, 2½ in. Centre to Centre	.15	.25	.35	.50	.60	.70
For 1¼-in. Pipe, 3 in. Centre to Centre	.17	.27	.40	.60	.70	.80
For 1½-in. Pipe, 3½ in. Centre to Centre	.25	.40	.60	.75	.90	1.00
For 2-in. Pipe, 4½ in. Centre to Centre	.40	.60	.85	1.00	1.35	1.55



Fig. 457

Fig. 454

Orders for Plates with more than six Hooks will be filled with two Plates.

HOOK PLATES—EXPANSION PLATES

STEEL

These Hooks and Plates being of Steel will not break. They are stronger, neater and easier to work than Cast Iron, and being furnished in long strips, as many as may be desired can be easily cut off.

Fig. 458. STEEL HOOK PLATES

Size.....Inches	1	1¼	1½	2
Number of Hooks.....	.30	.30	.25	.20
Price.....per length	2.50	3.25	3.75	4.25

Fig. 459. STEEL EXPANSION PLATES

Size.....Inches	1	1¼	1½	2
Number of Plates.....	.30	.30	.25	.20
Price.....per length	3.60	4.20	5.00	6.00



Fig. 458



Fig. 459

ADJUSTABLE WALL COIL HANGERS



Fig. 679

Fig. No. 679 —Single Coil—2¼" To coil

Fig. No. 679A —Single Coil—6¼" To coil

Fig. No. 679B —Double Coil—2¼" To coil

Fig. No. 679C —Double Coil—6¼" To coil

No. of Branches		4	5	6	7	8	9	10	11	12
Fig. No. 679	1¼ Pipe	2.00	2.10	2.20	2.30	2.40	2.50	2.60	2.75	2.85
	1½ Pipe	2.10	2.20	2.30	2.40	2.50	2.70	2.80	3.00	3.25
Fig. No. 679A	1¼ Pipe	2.35	2.45	2.55	2.75	2.85	2.95	3.10	3.20	3.40
	1½ Pipe	2.45	2.55	2.70	2.85	3.00	3.10	3.30	3.40	3.50
Fig. No. 679B	1¼ Pipe	2.60	2.85	3.00	3.40	3.55	3.80	4.00	4.25	4.70
	1½ Pipe	2.85	3.00	3.30	3.55	3.90	4.10	4.45	4.70	4.95
Fig. No. 679C	1¼ Pipe	4.55	4.75	5.00	5.35	5.50	5.75	6.00	6.15	6.65
	1½ Pipe	4.75	5.00	5.30	5.50	5.85	6.10	6.40	6.65	6.90

ADJUSTABLE HANGER PLATES

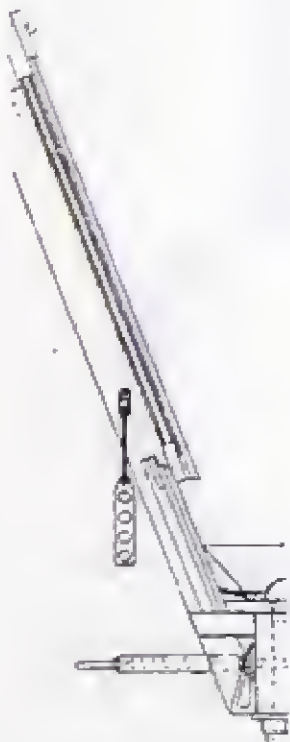


Fig. X

Fig. 681



Fig. Y

Fig. 686

The Adjustable Hanger Plate can be fastened to wood or steel frame-work of saw-tooth skylights, also to steel columns or struts of trusses when coils are placed vertically in overhead Position.

LIST PRICES
Adjustable Hanger Plate only

No. of Branches	4	5	6	7	8	9	10	11	12
Fig. 1¼" Pipe	.52	.60	.72	.92	1.00	1.12	1.25	1.36	1.56
No. 159 1½" Pipe	.60	.72	.88	1.00	1.16	1.30	1.44	1.56	1.70

STEEL PIPE HANGERS

BAND HANGERS



Fig. 688

HINGED HANGERS



Fig. 758

Size of Pipe.....Inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Fig. 456—Plain.....Each	.14	.14	.16	.18	.20	.22	.24	.26	.30	.32
Fig. 457—Hinged.....Each	.17	.17	.19	.21	.23	.25	.27	.29	.33	.35
Size of Pipe.....Inches	4 1/2	5	6	7	8	9	10	11	12	
Fig. 456—Plain.....Each	.34	.36	.40	.63	.88	1.10	1.35	1.55	1.85	
Fig. 457—Hinged.....Each	.37	.39	.43	.68	.93	1.15	1.45	1.65	1.95	

I BEAM CLAMPS

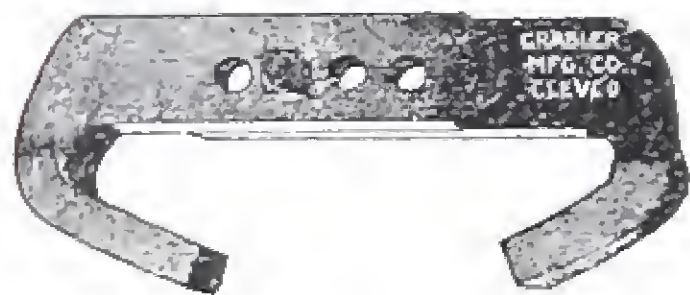


Fig. 759

BEAM PLATES

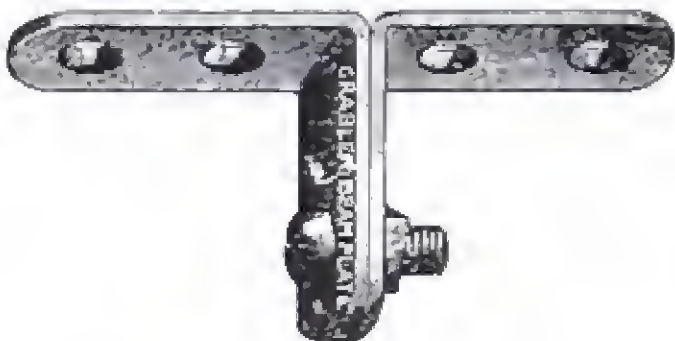


Fig. 760

FLATTENED LAG SCREWS



Fig. 460

Number.....	1	2	3	4	5
Size for Pipe.....Inches	1/2 to 1 1/2	2 to 3	3 1/2 to 6	7 to 8	9 to 12
Fig. 458—Beam Clamps.....Each	.25	.30	.35	.50	.70
Fig. 459—Beam Plates, with Bolt.....Each	.09	.11	.14	.25	.36
Fig. 460—Flattened Lag Screws.....Each	.10	.12	.14	.20	.25

STEEL EXTENSION BARS



Fig. 461

Number.....	1	2	3	4	5
Size of Pipe.....Inches	1/2 to 1 1/2	2 to 3	3 1/2 to 6	7 to 8	9 to 12
Width of Bar.....Inches	7/8	1	1 1/8	1 1/4	1 1/2
Fig. 461.....Per foot	.08	.09	.10	.20	.28

These Extension Bars are sold only in lengths of 10 feet.

STEEL PIPE HANGERS

Steel Pipe Hangers are great time and money savers. They are made of first quality soft steel, and the only tools needed to put them up are a hammer, cold chisel and wrench.

The pipe is put in the Hangers without trouble, and by using Extension Bar no taking of measurements is required.

Extension Bars are in 10-foot lengths, with holes about 1/2-inch apart, and are easily cut by cold chisel to desired length.

Below are illustrations showing the various attachments and positions in which the Hangers can be used.



Fig. 462

Fig. 462 shows bent extension bar. The bar can be bent to any angle.

HINGE HANGERS

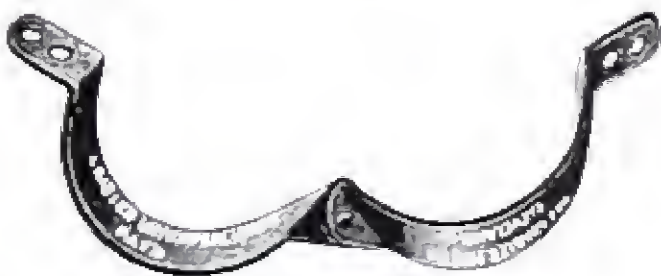


Fig. 463

Fig. 463 shows working of hinge.



Fig. 464

Fig. 464, fitted with Beam Plates. This style is used largely for "Finished" interior work.



Fig. 465

Fig. 465 shows fitted with Lag Screw.



Fig. 466

Fig. 466, fitted with drop forged Beam Clamps for attaching to steel beams.

For detailed price list, see next page.

WATER PIPE SADDLES

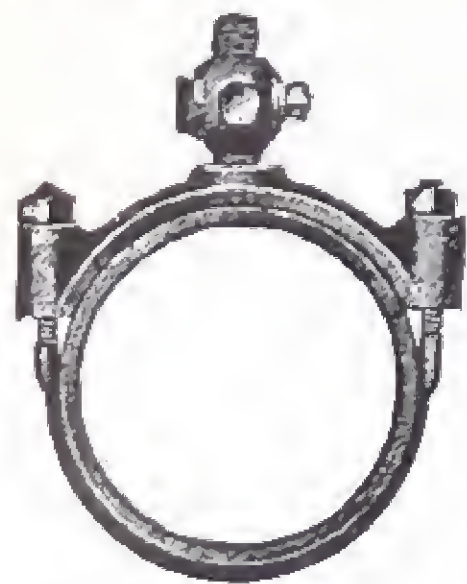


Fig. 467

PIPE SADDLES
MALLEABLE IRON
WITH
WROUGHT IRON STRAPS

STEAM PIPE SADDLES

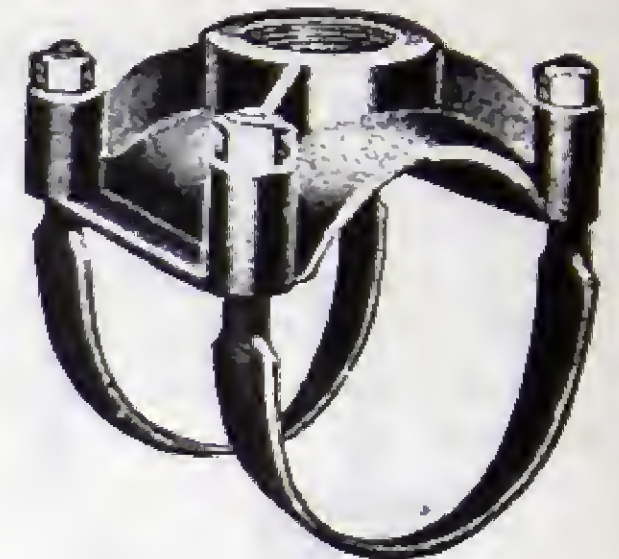


Fig. 468

Fig. 467. WATER PIPE SADDLES

Number.....	0	1	2	3	4	5	6	7	8	9	10
For W.I. Pipe, in....	1½	2	2½	3	3	3½	3½	4	4	4	4½
For C.I. Pipe, in....			2			3	3				4
Tapped for Pipe, in.	½-¾	½-1	½-1¼	½-1	1¼-2	¾-1	1¼-2	½-1½	2	2½-3	¾-1½
Fig. 467..... Each	1.00	1.00	1.25	1.25	1.50	1.50	1.75	1.75	2.00	4.00	1.80
Number.....	11	12	13	14	15	16	17	18	19	20	21
For W.I. Pipe, in....	4½	4½	5	5	5				6	6	6
For C.I. Pipe, in....	4	4				5	5	5			
Tapped for Pipe, in.	2	2½-3	¾-1½	2	2½-3	½-1½	2	2½-3	¾-1½	2	2½-3
Fig. 467..... Each	2.15	4.00	1.80	2.15	4.00	2.00	2.40	4.50	2.25	2.50	5.00
Number.....	22	23	24	25	26	27	30½	31	32	35	36
For W.I. Pipe, in....				7	7	7	8	8	8	10	12
For C.I. Pipe, in....	6	6	6								
Tapped for Pipe, in.	¾-1½	2	2½-3	¾-1½	2	2½-3	¾-1½	2-3	4	¾-2	¾-2
Fig. 467..... Each	2.50	2.70	5.00	2.50	2.70	5.00	5.50	5.50	6.00	9.00	10.00

Fig. 468. STEAM PIPE SADDLES

Size of Pipe.....Inches	1½	2	2½	3	3½	4	4½	5	5
Tapped for Pipe.....Inches	½-¾	½-1½	¾-1½	¾-2	¾-2	¾-2	¾-2	¾-2	2½-3
Fig. 468..... Each	.90	1.00	1.25	1.25	1.40	1.50	2.50	2.75	2.75
Size of Pipe.....Inches	6	6	7	8	10	10	12	12	....
Tapped for Pipe.....Inches	¾-2	2½-4	1-4	1-4	1½-4	4½-6	1½-4	4½-6	
Fig. 468..... Each	2.75	5.75	6.50	6.50	10.00	10.00	14.00	14.00	

TINNED PIPE CLIPS



Fig. 469

Size.....Inches	¼	⅜	½	¾	1	1¼	1½	2
Fig. 469..... Per lb.	.20	.20	.20	.20	.20	.20	.20	.20
Approx. Weight per 100 pcs., lbs.....	2	2½	3	4	5	5½	6½	12

SADDLE HANGERS



Fig. 470



Fig. 471

Fig. 470. STANDARD TYPE

Pipe Size	Number of Branches									
	2	3	4	5	6	7	8	9	10	12
1¼	.30	.40	.50	.55	.70	.80	.90	1.20	1.30	1.70
1½	.40	.45	.55	.60	.75	.90	1.15	1.30	1.50	2.00

Fig. 471. EXPANSION TYPE

Pipe Size	Number of Branches									
	2	3	4	5	6	7	8	9	10	12
1¼	.25	.35	.40	.45	.55	.70	.80	1.00	1.20	1.30
1½	.30	.40	.45	.55	.60	.80	1.00	1.20	1.35	1.60

List Prices Do not Include Hanger Rods and Nuts.

CONCRETE INSERTS



Fig. 472. Screw Insert



Fig. 473. Adjustable Insert

Fig. 472. SCREW INSERT

Insert Number.....	1	2	3	4	5
Pipe Size.....Inches	¾-2	2½-3½	4-5	6-7	8-12
Fig. 472.....Each	.08	.08	.14	.18	.24

Fig. 473. ADJUSTABLE INSERT

Insert Number.....	1	2	3	4	5
Pipe Size.....Inches	¾-2	2½-3½	4-5	6-7	8-12
Fig. 473.....Each	.20	.30	.40	.60	.80

PIPE ROLLS

SINGLE AND BRANCH CAST IRON



Fig. 479



Fig. 480

Fig. 480. BRANCH PIPE ROLLS WITH ROLL ROD AND ADJUSTABLE SOCKETS

No. of Branches.....	2	3	4	5	6	7	8	9	10	11	12
1 1/4 inch.....	.60	.80	.90	1.00	1.10	1.35	1.60	1.70	1.80	1.90	2.00
1 1/2 inch.....	.65	.85	1.00	1.10	1.25	1.50	1.75	1.85	2.00	2.10	2.2

Fig. 479. SINGLE PIPE ROLLS WITH ROLL ROD AND ADJUSTABLE SOCKETS

Size.....Inches	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	6
Pipe Rolls with Roll Rods and Adjustable Socket.....	.35	.35	.35	.40	.40	.45	.45	.45	.55	.65	.75
Pipe Rolls only.....	.08	.09	.10	.13	.15	.18	.21	.21	.24	.24	.27
Size.....Inches	7	8	9	10	12	14	15	16	18		
Pipe Rolls with Roll Rods and Adjustable Socket.....	.85	1.25	1.80	2.20	3.50	4.00	5.00	6.00	8.00		
Pipe Rolls only.....	.36	.60	1.00	1.40	2.00	2.75	3.50	4.50	6.00		

1 BEAM CLAMPS

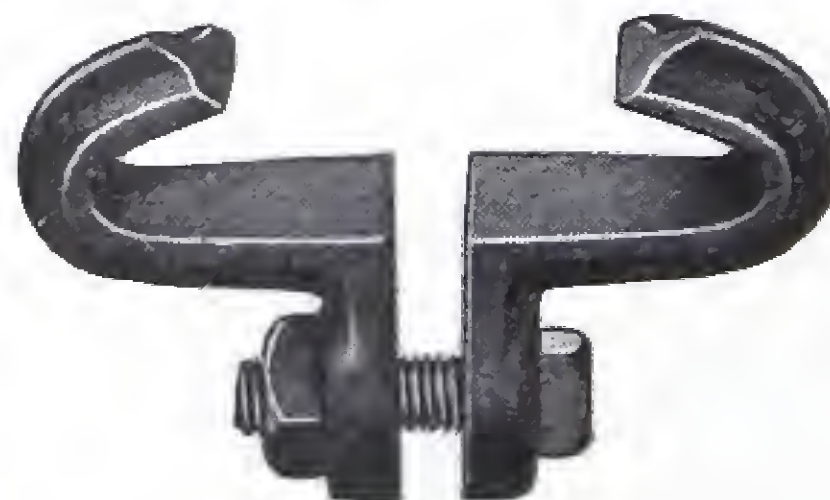


Fig. 474

1 Beam Flange Width.....Inches	2	2 1/2	3	3 1/2	4	4 1/2	5	5 1/2	6
Fig. 474.....Each	.40	.40	.40	.40	.40	.40	.40	.40	.40

SOLID RING PIPE HANGERS
CAST IRON



Fig. 481



Fig. 482

Fig. 481. SHORT

Size.....Inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Black.....Per 100 Pcs.	5.00	5.00	5.80	7.75	10.00	14.00	22.00
Galv'd.....Per 100 Pcs.	6.50	6.50	7.00	9.00	12.00	16.00	25.00
Length to centre of Ring.....	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{11}{16}$	$1\frac{15}{16}$	$2\frac{1}{4}$

Fig. 482. LONG

Size.....Inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Black.....Per 100 Pcs.	6.50	6.50	8.00	10.00	12.00	15.00	24.00
Galv'd.....Per 100 Pcs.	8.00	8.00	10.00	12.00	14.00	18.00	27.00
Length to Centre of Ring.....	$2\frac{3}{8}$	$2\frac{1}{2}$	$2\frac{3}{4}$	$2\frac{7}{8}$	$3\frac{1}{4}$	$3\frac{7}{8}$	$4\frac{1}{2}$

ADJUSTABLE SWIVEL RING HANGER
MALLEABLE IRON



Fig. 483

Pipe Size.....Inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Size of Tapping.....	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{2}$
Distance Tapping to Centre of Pipe.....	$2\frac{1}{2}$	$2\frac{3}{4}$	$2\frac{7}{8}$	3	$3\frac{1}{4}$	$3\frac{3}{4}$	$4\frac{1}{8}$
Fig. 483.....Each	.18	.20	.21	.22	.24	.34	.42
Pipe, Size.....Inches	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	7	8
Size of Tapping.....	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{7}{8}$
Distance Tapping to Centre of Pipe.....	$4\frac{3}{8}$	$5\frac{3}{8}$	$5\frac{1}{2}$	$5\frac{3}{4}$	7	$7\frac{3}{4}$	$8\frac{7}{8}$
Fig. 483.....Each	.44	.56	.62	.70	1.08	1.75	1.92

EXPANSION PIPE HANGERS

CAST IRON

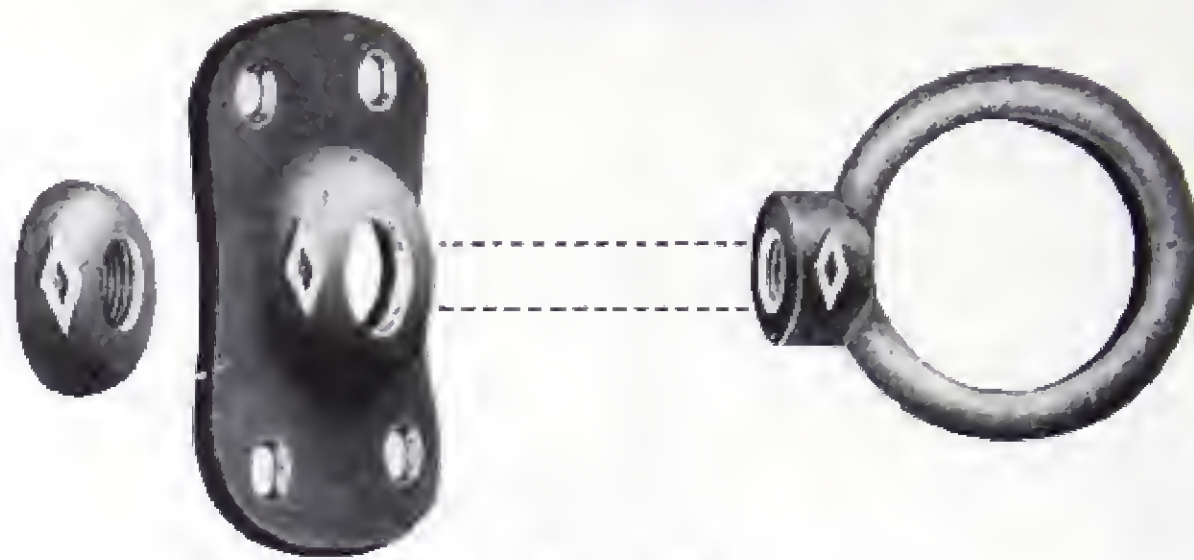


Fig. 484

Size.....Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Price, Complete.....Each	.17	.17	.18	.19	.25	.29	.36	.44
Price, Rings.....Each	.08	.08	.12	.15	.20	.25	.30	.40
Price, Plates.....Each	.08	.08	.08	.08	.09	.09	.10	.10
Price, Buttons.....Each	.06	.06	.06	.06	.07	.07	.08	.08
Size of Pipe, Rings and Buttons are Tapped for.....Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{2}$
Size.....Inches	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	7	8	
Price, Complete.....Each	.55	.63	.90	1.12	1.35	1.80	2.25	
Price, Rings.....Each	.50	.60	.80	1.00	1.25	1.70	2.15	
Price, Plates.....Each	.10	.10	.10	.10	.10	.10	.10	
Price, Buttons.....Each	.08	.08	.08	.08	.08	.08	.08	
Size of Pipe, Rings and Buttons are Tapped for.....Inches	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$	

Prices do not include pipe from ceiling plate to ring; this will be at extra price and furnished only when so specified. If pipe is desired, state distance from centre of pipe to support.



Fig. 485

ADJUSTABLE PIPE HANGERS

MALLEABLE IRON

Pipe Size.....Inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Size of Hanger Rod.....	$\frac{3}{8} \times 5\frac{1}{4}$	$\frac{3}{8} \times 5\frac{1}{4}$	$\frac{3}{8} \times 5\frac{3}{4}$	$\frac{3}{8} \times 6\frac{1}{8}$	$\frac{3}{8} \times 7$
Distance Ceiling to Centre of Pipe.....	$6\frac{3}{4}-7\frac{1}{8}$	$7\frac{5}{8}$	$8\frac{1}{8}$	$8\frac{5}{8}-9\frac{1}{8}$	$9\frac{5}{8}-10\frac{1}{8}$
Fig. 485.....Each	.18	.20	.22	.25	.28

PIPE HANGER FLANGES

CAST IRON



Fig. 486

Flange Number.	1	2	3	4	5
Pipe Size Inches	$\frac{3}{4}$ -2	$2\frac{1}{2}$ - $3\frac{1}{2}$	4-5	6-7	8-12
Diameter of Flange.Inches	$2\frac{7}{8}$	4	$4\frac{3}{4}$	$5\frac{1}{4}$	6
Size of Screws....	$1\frac{1}{2}$ xNo. 18 Wood	$\frac{3}{8}$ xNo.2 Coach	$\frac{1}{2}$ xNo.2 Coach	$\frac{9}{16}$ xNo.2 Coach	$\frac{5}{8}$ xNo.2 Coach
Fig. 486....Each	.08	.15	.30	.36	.60

CEILING FLANGES

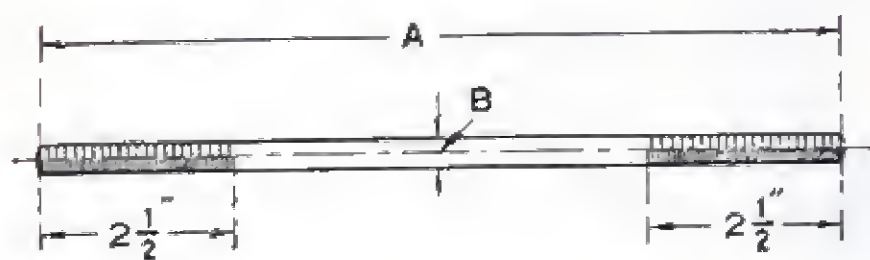
MALLEABLE IRON
Plain or Galvanized



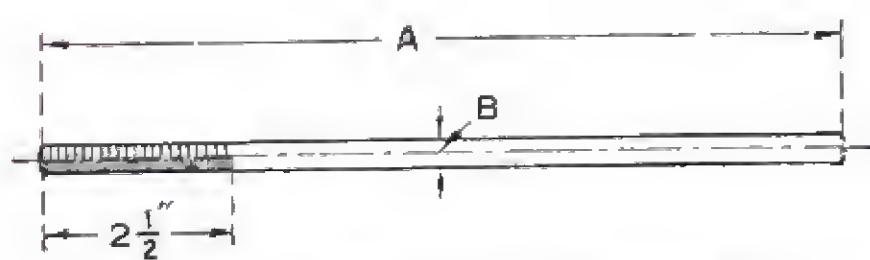
Fig. 487

Flange Number.....	0	1	2	3	4
Pipe Size.....	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$
Quantity of Screws.....	2	2	2	4	4
Size Number of Screws.....	12	12	14	18	18
Fig. 487—Plain.....Each	.10	.10	.15	.20	.22
Fig. 487—Galvanized.....Each	.15	.15	.20	.25	.28

HANGER RODS

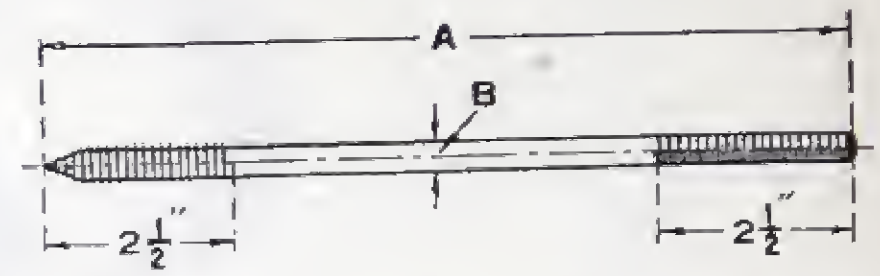


Machine Threaded Both Ends
Fig. 488

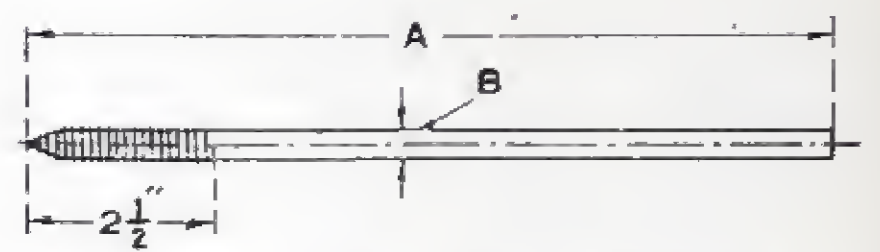


Machine Threaded One End
Fig. 489

COACH SCREW RODS



Machine Threaded on Opposite End
Fig. 490



Opposite End Not Threaded
Fig. 491

Figs. 488 and 489. HANGER RODS—MACHINE THREADED

Size B	Length A.													
	8	10	12	14	18	24	30	36	42	48	54	60	66	72
3/8	.08	.08	.08	.10	.10	.12	.14	.16	.18	.20	.22	.24	.26	.28
1/2	.10	.10	.10	.14	.14	.17	.20	.23	.26	.29	.32	.35	.38	.41
5/8	.18	.18	.18	.24	.24	.30	.36	.42	.48	.54	.60	.66	.72	.78
3/4	.25	.25	.25	.30	.30	.38	.45	.50	.60	.65	.75	.80	.90	.95
7/8	.30	.30	.30	.40	.40	.50	.60	.70	.80	.90	1.00	1.10	1.20	1.30
1	.35	.35	.35	.50	.50	.60	.75	.90	1.00	1.15	1.25	1.35	1.50	1.60
1 1/8	.45	.45	.45	.65	.65	.75	.95	1.10	1.30	1.50	1.60	1.75	1.90	2.10

Figs. 490 and 491. COACH SCREW RODS

Size B	Length A.													
	8	10	12	14	18	24	30	36	42	48	54	60	66	72
3/8	.06	.06	.06	.08	.08	.10	.12	.14	.16	.18	.20	.22	.24	.26
1/2	.09	.09	.09	.12	.12	.15	.18	.21	.24	.27	.30	.33	.36	.39
5/8	.13	.13	.13	.17	.17	.21	.25	.29	.33	.37	.41	.45	.49	.53
3/4	.14	.14	.14	.19	.19	.24	.29	.34	.39	.44	.49	.54	.59	.64
7/8	.20	.20	.20	.27	.27	.34	.41	.49	.55	.62	.69	.76	.83	.90

WROUGHT IRON U HOOKS



Fig. 492

Lengths.....	6	8	10	12	14	16
$\frac{5}{16}$ in. Iron for $\frac{3}{4}$ and 1 in. Pipe.....Each	.05	.05	.06	.06		
$\frac{5}{16}$ in. Iron for $1\frac{1}{4}$ and $1\frac{1}{2}$ in. Pipe.....Each	.05	.05	.06	.06	.07	
$\frac{5}{16}$ in. Iron for 2 in. Pipe.....Each		.05	.06	.06	.07	.08
$\frac{3}{8}$ in. Iron for $2\frac{1}{2}$ and 3 in. Pipe.....Each			.11	.11	.12	.13
$\frac{7}{16}$ in. Iron for $3\frac{1}{2}$ and 4 in. Pipe.....Each			.15	.15	.18	.21
$\frac{9}{16}$ in. Iron for 5 in. Pipe.....Each			.28	.28	.30	.32
$\frac{5}{8}$ in. Iron for 6 in. Pipe.....Each			.35	.35	.38	.41

PIPE THREADED COACH SCREWS



Fig. 493

Number.....	1	2	3	4
Pipe Thread.....Inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$
Coach Screw Thread.....Inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$
Length.....Inches	$3\frac{1}{2}$	$3\frac{1}{2}$	5	5
Fig. 493.....Each	.10	.12	.14	.20

STEEL TOGGLE BOLTS

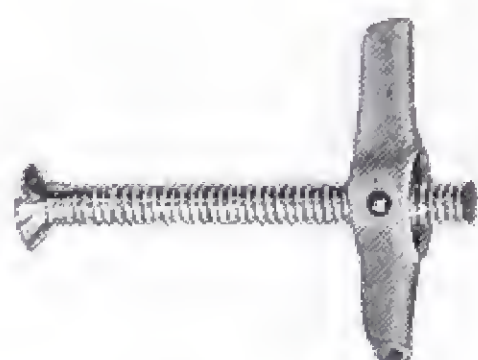


Fig. 494

Size of Screw.....	$\frac{1}{8} \times 3$	$\frac{1}{8} \times 4$	$\frac{5}{32} \times 3$	$\frac{5}{32} \times 4$	$\frac{3}{16} \times 3$	$\frac{3}{16} \times 4$	$\frac{3}{16} \times 5$	$\frac{3}{16} \times 6$
Drill Size.....			$\frac{7}{16}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Fig. 494..... Per 50 Pcs.	9.00	9.80	9.00	9.80	10.00	11.00	12.00	12.50
Size of Screw.....	$\frac{1}{4} \times 3$	$\frac{1}{4} \times 4$	$\frac{1}{4} \times 5$	$\frac{1}{4} \times 6$	$\frac{5}{16} \times 3$	$\frac{5}{16} \times 4$	$\frac{5}{16} \times 6$	
Drill size.....	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{5}{8}$	$\frac{3}{4}$	$\frac{3}{4}$	$\frac{3}{4}$	
Fig. 494..... Per 50 Pcs.	14.00	15.00	15.50	16.00	22.00	24.00	26.00	

STEEL STAR DRILLS



Fig. 495

Diameter.....Inches	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{9}{16}$	$\frac{5}{8}$	$\frac{11}{16}$	$\frac{3}{4}$	$\frac{7}{8}$
8 Inches Long.....Dozen	8.25	8.25	8.25	8.70	9.65	11.65	11.65	13.70	13.70	15.30
12 Inches Long.....Dozen	8.50	8.50	8.50	9.00	10.00	12.00	12.00	14.00	14.00	16.00
18 Inches Long.....Dozen	11.00	11.00	11.00	11.50	12.50	15.00	15.00	17.50	17.50	20.00
24 Inches Long.....Dozen	13.50	13.50	13.50	14.00	15.00	17.50	17.50	20.00	20.00	22.50
Diameter.....Inches	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$	$1\frac{5}{8}$	$1\frac{3}{4}$	$1\frac{7}{8}$	2	
8 Inches Long.....Dozen	17.00									
12 Inches Long.....Dozen	18.00	24.00	30.00	40.00	50.00	60.00	75.00	90.00	105.00	
18 Inches Long.....Dozen	22.50	28.00	35.00	45.00	56.00	66.00	81.00	97.00	112.00	
24 Inches Long.....Dozen	25.00	32.00	40.00	50.00	62.00	72.00	87.00	104.00	120.00	

STANDARD GLOBE AND ANGLE VALVES

BRASS

125 Pounds Working Pressure

GLOBE



Fig. 496

ANGLE



Fig. 497

GOVERNMENT
APPROVED

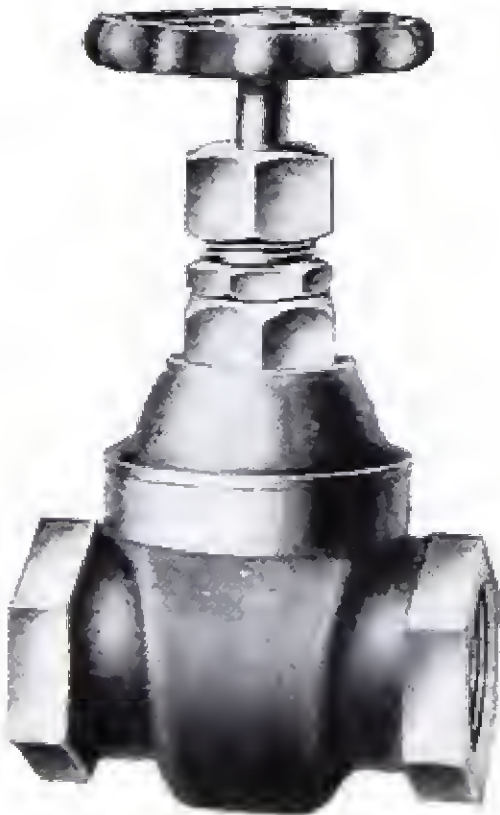
Size.....Inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Figs. 496 and 497.....Each	.72	.72	.77	1.00	1.26	1.80	2.52	3.50	5.30	10.00	14.40

WEBER GATE VALVES

BRASS

125 lbs.
Working Steam
Pressure

175 lbs.
Working Water
Pressure



Stationary
Spindle

Fig. 498. SCREWED
Fig. 499. FLANGED

Size.....Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Fig. 498—Screwed.....Each	1.45	1.45	1.65	2.05	2.80	3.70	5.00	7.30	13.00	19.00
Fig. 499—Flanged.....Each				9.00	10.25	12.00	15.00	25.00	33.00	39.00

GATE VALVES

PEET PATTERN

BRASS

125 lbs.
Working Steam
Pressure

175 lbs.
Working Water
Pressure



Rising Spindle

Fig. 504. SCREWED
Fig. 505. FLANGED

Size	Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Fig. 504—Screwed	Each	1.45	1.45	1.65	2.05	2.80	3.70	5.00	7.30	13.00	19.00
Fig. 505—Flanged	Each				9.00	10.25	12.00	15.00	25.00	33.00	39.00

GENUINE JENKINS GATE VALVES

TYPE K BRASS

SCREWED

FLANGED



125 Pounds Working Steam Pressure
175 Pounds Working Water Pressure

GOVERNMENT APPROVED

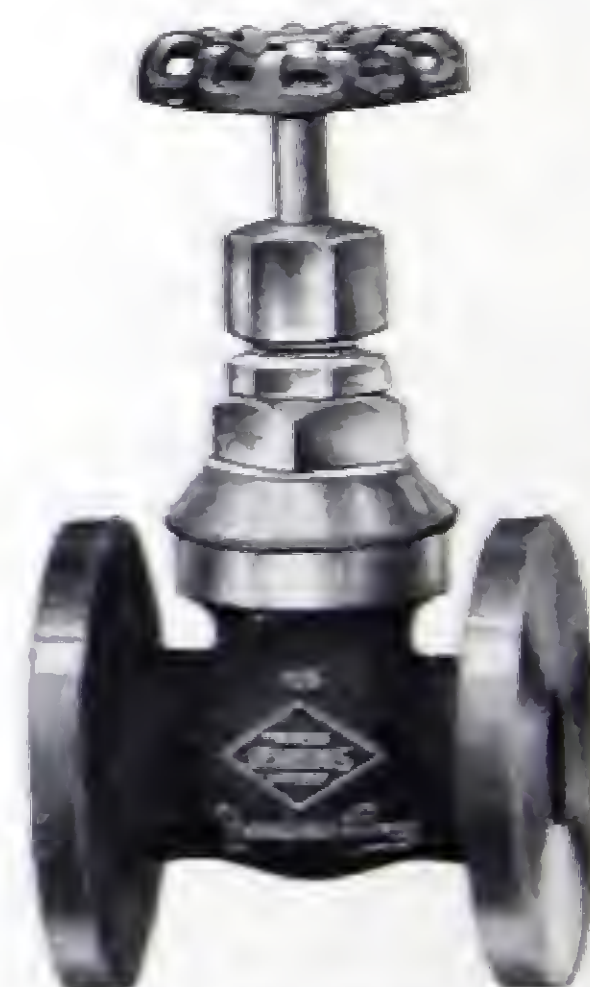


Fig. 300

Fig. 301

Size	Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Fig. 300—Screwed	Each	1.45	1.45	1.65	2.05	2.80	3.70	5.00	7.30	13.00	19.00
Fig. 301—Flanged	Each				9.00	10.25	12.00	15.00	25.00	33.00	39.00

Drilling Templates Page 64.

STANDARD CHECK VALVES

HORIZONTAL

BRASS

HORIZONTAL



Fig. 506. Screwed.

125 lbs. Working Pressure.

Regrinding Disc.



Fig. 507. Flanged

Size.....Inches	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Fig. 506—Screwed, Rough.....Each	.65	.65	.70	.90	1.15	1.60	2.25	3.15	4.75	9.00	13.00
Fig. 506—Screwed, Finished Each	2.00	2.00	2.00	2.15	2.50	3.25	4.35	5.75	9.00	.....	.....
Fig. 507—Flanged, Rough.....Each	.....	.....	.....	.....	.....	6.50	8.25	10.15	15.50	22.00	33.50

STANDARD CHECK VALVES

BRASS

125 Pounds Working Pressure.

Regrinding Disc

ANGLE

ANGLE

VERTICAL



Fig. 508. Screwed.



Fig. 509. Flanged.



*Fig. 510. Screwed.

Size.....Inches	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Fig. 508—Screwed, Rough.....Each	.65	.65	.70	.90	1.15	1.60	2.25	3.15	4.75	9.00	13.00
Fig. 508—Screwed, Finished Each	2.00	2.00	2.00	2.15	2.50	3.25	4.35	5.75	9.00	.....	.....
Fig. 509—Flanged, Rough.....Each	.....	.....	.....	.....	.....	6.50	8.25	10.15	15.50	22.00	33.50

*Vertical Pattern screwed. Same sizes and prices as Angle screwed.

Drilling Templates Page 64.

STANDARD SWING CHECK VALVES

BRASS

125 Pounds Working Pressure



Fig. 511

Size..... Inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Fig. 511—Screwed..... Each	1.80	2.00	2.25	2.80	3.65	4.75	6.75	15.00	24.00
Fig. 511A—Flanged..... Each			4.25	6.25	7.85	10.25	15.50	25.00	32.50

J. D. GLOBE AND ANGLE VALVES

BRASS

150 Pounds Working Pressure

GLOBE

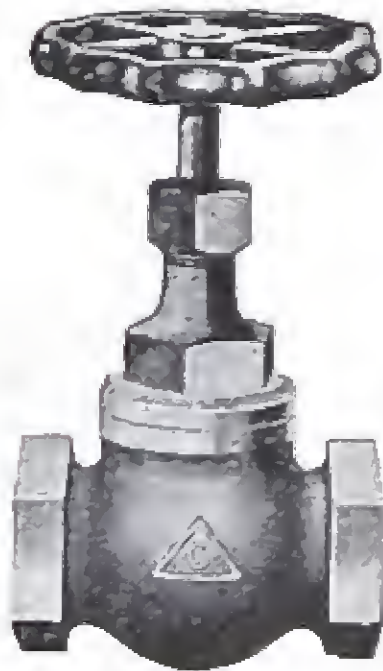


Fig. 512

ANGLE



Fig. 513

Size..... Inches	$\frac{1}{8}-\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Figs. 512 and 513..... Each	1.10	1.15	1.60	2.20	2.80	4.00	5.50	8.75	15.75	22.00

Drilling Templates Page 64.

GENUINE JENKINS GLOBE AND ANGLE VALVES
BRASS

150 Pounds Working Steam Pressure
250 Pounds Working Water Pressure

GLOBE



Fig. 106

ANGLE

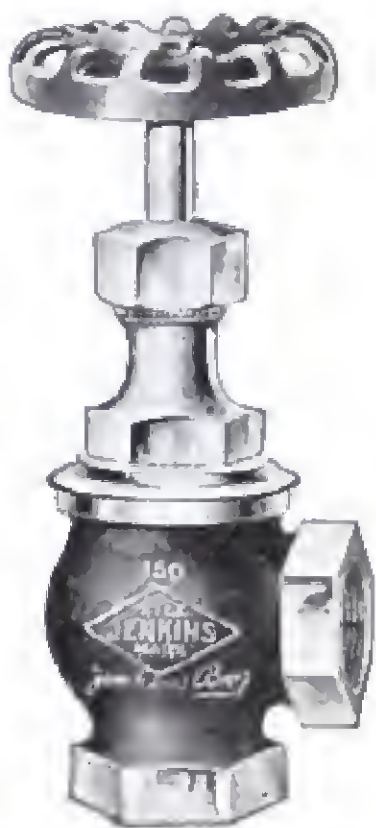


Fig. 108

SCREWED
GOVERNMENT
APPROVED

Size.....Inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3
Figs. 106 and 108.....Each	1.10	1.10	1.25	1.60	2.20	2.80	4.00	5.50	8.75	15.75	22.00

GLOBE



Fig. 107

ANGLE



Fig. 109

FLANGED
GOVERNMENT
APPROVED

Size.....Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2	2 $\frac{1}{2}$	3
Figs. 107 and 109.....Each	3.50	4.00	4.00	5.00	6.00	9.00	11.00	16.50	25.00	34.00

GENUINE JENKINS CROSS VALVES

BRASS

SCREWED



Fig. 110

FLANGED

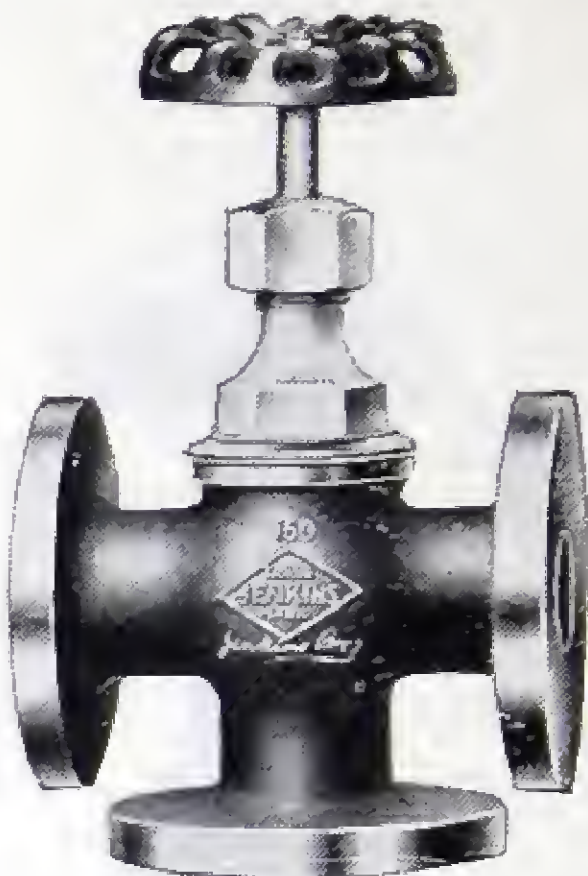


Fig. 111

150 Pounds
Working Steam Pressure

250 Pounds Working Water Pressure

GOVERNMENT APPROVED

Size.....Inches	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Fig. 110—Screwed.....Each	1.70	2.00	2.25	2.50	3.25	4.75	6.25	9.50	20.00	27.50
Fig. 111—Flanged.....Each			7.00	8.00	9.00	12.00	15.00	23.00	33.00	44.00

GENUINE JENKINS CHECK VALVES

BRASS

HORIZONTAL, ANGLE AND VERTICAL

150 Pounds Working Pressure

SCREWED

GOVERNMENT APPROVED

HORIZONTAL



Fig. 117

ANGLE



Fig. 118

VERTICAL



Fig. 119

Fig. 120 HORIZONTAL FLANGED
Fig. 120A ANGLE FLANGED
Fig. 120B VERTICAL FLANGED

Size.....Inches	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Figs. 117, 118, 119 Screwed...Each	1.10	1.10	1.20	1.30	1.90	2.60	3.60	5.00	7.50	14.00	21.00
Figs. 120, 102A, 102B FlangedEach				4.00	5.00	6.00	8.00	10.00	15.00	23.00	32.00

GENUINE JENKINS SWING CHECK VALVES

BRASS

150 Pounds Working Pressure

GOVERNMENT APPROVED

SCREWED



Fig. 475

FLANGED



Fig. 476

Size.....Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Fig. 475—Screwed.....Each	1.20	1.20	1.30	1.90	2.60	3.60	5.00	7.50	14.00	21.00
Fig. 476—Flanged.....Each			4.00	5.00	6.00	8.00	10.00	15.00	23.00	32.00

Drilling Templates Page 64.

GENUINE JENKINS CHECK VALVES

BRASS

WITH DRIP COCK

GOVERNMENT APPROVED



Fig. 657. HORIZONTAL

Size.....Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$
Fig. 657—with Drip Cock.....Each	2.60	3.30	4.25	5.50
Fig. 657—with Boss only.....Each	2.25	2.90	3.75	5.00

GENUINE JENKINS GLOBE AND ANGLE VALVES

BRASS

EXTRA HEAVY—"STERLING" PATTERN

300 Pounds Working Steam Pressure

500 Pounds Working Water Pressure

GLOBE

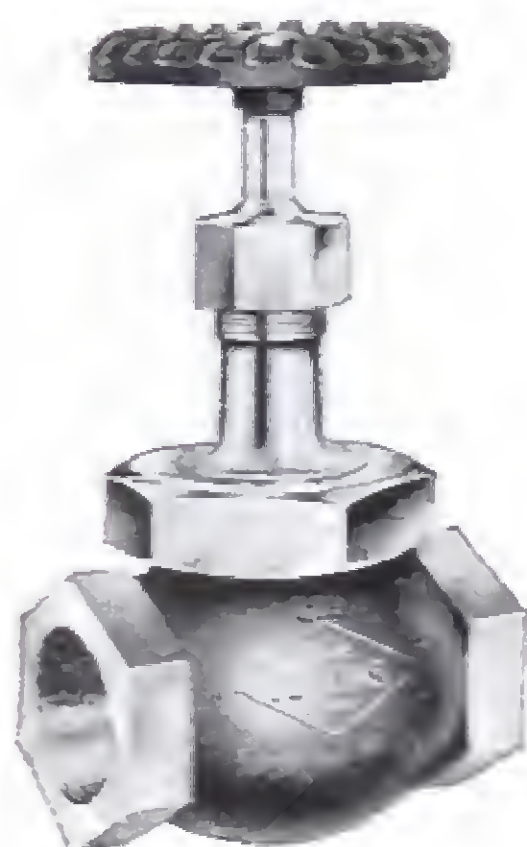


Fig. 500

ANGLE



Fig. 502

GOVERNMENT APPROVED
SCREWED

Size	Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Figs. 500 and 502	Each	3.00	3.50	4.00	5.00	6.50	8.25	11.00	16.00	33.00	45.00

GLOBE



Fig. 501

ANGLE



Fig. 503

GOVERNMENT APPROVED
FLANGED

Size	Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Figs. 501 and 503	Each	6.00	7.50	10.00	13.00	17.00	24.00	43.00	57.00

Drilling Templates Page 79.

HOSE GATE VALVES

BRASS

PEET PATTERN



Fig. 514

WEBER PATTERN

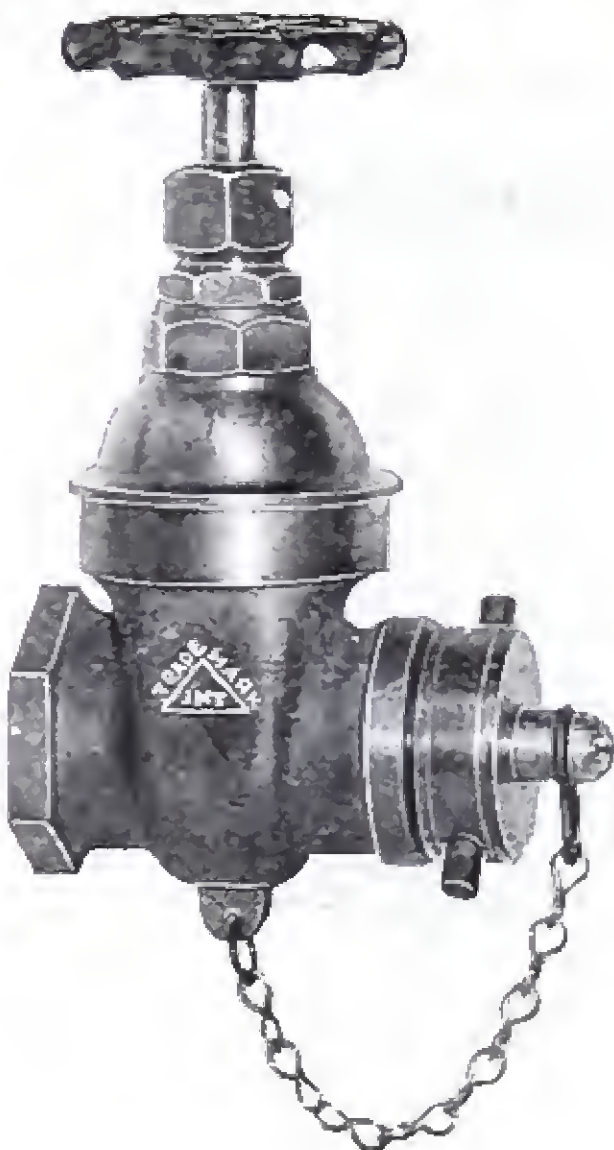


Fig. 515

ROUGH BODY, FINISHED MOUNTINGS—IRON WHEEL

Size.....Inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Without Cap and Chain.....Each	2.45	3.35	4.70	6.25	9.00	15.00	22.00
With Cap and Chain.....Each	3.95	5.10	6.70	8.85	12.60	20.00	29.50

ROUGH BODY, FINISHED MOUNTINGS—BRASS WHEEL

Size.....Inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Without Cap and Chain.....Each	3.70	5.20	6.85	8.85	12.30	18.70	27.30
With Cap and Chain.....Each	5.20	6.95	8.95	11.45	15.90	23.70	34.80

ROUGH BODY, NICKEL PLATED—BRASS WHEEL

Size.....Inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Without Cap and Chain.....Each	4.10	5.60	7.25	9.25	12.70	19.30	27.90
With Cap and Chain.....Each	5.60	7.35	9.35	11.85	16.30	24.30	35.40

FINISHED ALL OVER—BRASS WHEEL

Size.....Inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Without Cap and Chain.....Each	5.20	6.90	9.10	11.85	17.30	26.00	38.00
With Cap and Chain.....Each	6.70	8.65	11.10	14.45	20.90	31.00	45.50

FINISHED AND NICKEL PLATED—BRASS WHEEL

Size.....Inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Without Cap and Chain.....Each	5.70	7.50	9.80	12.65	18.30	27.25	39.75
With Cap and Chain.....Each	7.20	9.25	11.80	15.25	21.90	32.25	47.25

The above list prices are used on both Peet Pattern and Weber Pattern Valves, with different discounts applying.

GENUINE JENKINS HOSE GLOBE AND ANGLE VALVES

BRASS

THREADED ON OUTLET FOR HOSE CONNECTION

250 Pounds Working Water Pressure

ANGLE



Fig. 112

GLOBE



Fig. 113

SCREWED INLET

WITHOUT CAP AND CHAIN

Size.....Inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Figs. 112 and 113 Finished Trimmings Iron Wheel.....Each	2.10	2.70	3.30	4.70	6.50	9.90	17.10	23.50
Figs. 112 and 113 N. P. All Over Brass Wheel.....Each	3.20	3.80	4.40	5.90	7.90	12.40	20.60	27.10

ANGLE



Fig. 114

GLOBE



Fig. 114A

SCREWED INLET
WITH CAP AND CHAIN

Size.....Inches	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Figs. 114 and 114A. Finished Trimmings Iron Wheel.....Each	4.50	5.50	7.00	9.50	15.00	22.00	30.00
Figs. 114 and 114A N. P. All over Brass Wheel Ea.	6.00	7.00	8.70	11.70	16.80	27.50	36.50

PENBERTHY GATE VALVES

BRASS
150 Pounds Working Pressure
GOVERNMENT APPROVED



Fig. 516

Size.....Inches	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Fig. 516.....Each	1.45	1.45	1.65	2.05	2.80	3.70	5.00	7.30	13.00	19.00

PENBERTHY HORIZONTAL CHECK VALVES

BRASS
175 Pounds Working Pressure
GOVERNMENT APPROVED



Fig. 517

Size.....Inches	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Fig. 517.....Each	1.10	1.10	1.20	1.30	1.90	2.60	3.60	5.00	7.50	13.50	21.00
Fig. 517A With Drain Cock Ea.			1.75	1.85	2.45	3.15	4.15	5.55	8.05	14.10	21.60

PENBERTHY COMPODISK GLOBE AND ANGLE VALVES

BRASS

175 Pounds Working Pressure

GOVERNMENT APPROVED

ANGLE



Fig. 518

GLOBE



Fig. 519

Size.....Inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Figs. 518 and 519.....Each	1.10	1.10	1.25	1.60	2.20	2.80	4.00	5.50	8.75	15.75	22.00

PENBERTHY COMPODISK CROSS VALVES

BRASS

175 Pounds Working Pressure

GOVERNMENT APPROVED



Fig. 520

Size.....Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Fig. 520.....Each	1.70	2.00	2.25	2.50	3.25	4.75	6.25	9.50	20.00	37.50

PENBERTHY REGRINDING GLOBE AND ANGLE VALVES

BRASS

200 Pounds Working Pressure
GOVERNMENT APPROVED

ANGLE



Fig. 521

GLOBE



Fig. 522

Size.....Inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Figs. 521 and 522.....Each	1.10	1.10	1.25	1.60	2.20	2.80	4.00	5.50	8.75	15.75	22.00

PENBERTHY REGRINDING CROSS VALVES

BRASS

200 Pounds Working Pressure
GOVERNMENT APPROVED



Fig. 523

Size.....Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Fig. 523.....Each	1.70	2.00	2.25	2.50	3.25	4.75	6.25	9.50	20.00	27.50

PENBERTHY REGRINDING CHECK VALVES

BRASS

200 Pounds Working Pressure
GOVERNMENT APPROVED

ANGLE



Fig. 524

HORIZONTAL



Fig. 525

VERTICAL



Fig. 526

Size.....Inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Figs. 524, 525 and 526... Each	1.10	1.10	1.20	1.30	1.90	2.60	3.60	5.00	7.50	13.50	21.00
Fig. 525A With Drain Cock Each			1.75	1.85	2.45	3.15	4.15	5.55	8.05	14.10	21.60

PENBERTHY REGRINDING SWING CHECK VALVES

BRASS

200 Pounds Working Pressure
GOVERNMENT APPROVED



Fig. 527

Size.....Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Fig. 527..... Each	1.25	1.25	1.30	1.75	2.25	3.25	4.25	6.25	11.50	16.00

STANDARD GLOBE VALVES

IRON BODY—BRASS MOUNTED



125 lbs.
Working Pressure

REGRINDING
DISC



Fig. 528A. SCREWED

Fig. 528. FLANGED

Size.....Inches	1½	2	2½	3
Fig. 527—Screwed.....Each	3.50	5.40	7.35	9.80
Fig. 528—Flanged.....Each	4.80	7.00	9.00	12.50

STANDARD GLOBE VALVES

IRON BODY—BRASS MOUNTED—WITH YOKE



125 lbs.
Working Pressure

REGRINDING
DISC



Fig. 529. SCREWED

Fig. 530. FLANGED

Size.....Inches	2½	3	3½	4	4½	5	6
Fig. 529—Screwed.....Each	9.00	12.50	15.25	19.00	24.00	27.00	37.50
Fig. 530—Flanged.....Each	10.75	15.00	18.50	22.50	27.50	31.00	42.00

STANDARD ANGLE VALVES

IRON BODY—BRASS MOUNTED



Fig. 531. SCREWED

125 lbs.
Working Pressure

REGRINDING
DISC



Fig. 532. FLANGED

Size.....Inches	1½	1	2½	3
Fig. 531—Screwed.....Each	3.50	5.40	7.35	9.80
Fig. 532—Flanged.....Each	4.80	7.00	9.00	12.50

STANDARD ANGLE VALVES

IRON BODY—BRASS MOUNTED—WITH YOKE



Fig. 533. SCREWED

125 lbs.
Working Pressure

REGRINDING
DISC



Fig. 534. FLANGED

Size.....Inches	2½	3	3½	4	4½	5	6
Fig. 533—Screwed.....Each	9.00	12.50	15.25	19.00	24.00	27.00	37.50
Fig. 534—Flanged.....Each	10.75	15.00	18.50	22.50	27.50	31.00	42.00

Drilling Templates Page 64.



Fig. 401. SCREWED

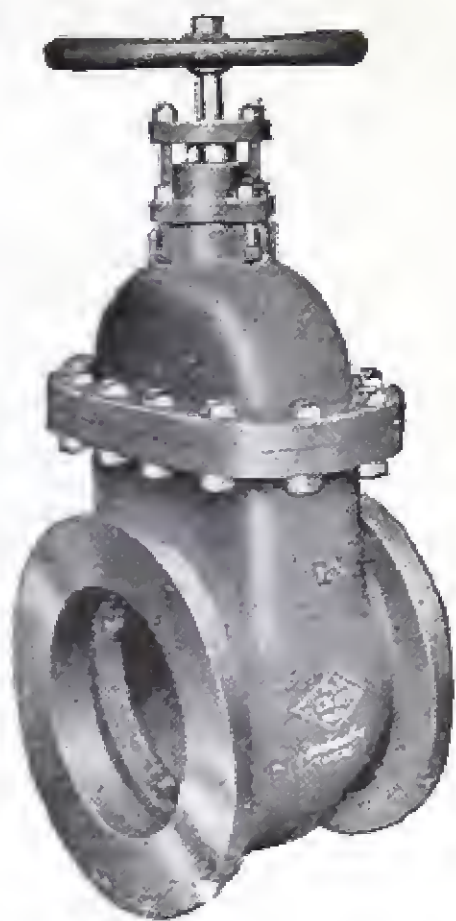


Fig. 402. FLANGED

Size.....Inches	2	2½	3	3½	4	4½	5	6	7	8	9	10	12
Fig. 401													
Screwed.....Each	10.00	11.50	14.00	17.00	19.00	24.00	27.50	32.50	45.00	54.00	76.00	90.00	125.00
Fig. 402													
Flanged.....Each	12.00	13.50	16.50	19.50	23.00	28.00	31.50	36.50	49.00	58.00	81.00	95.00	133.00



Fig. 403. SCREWED

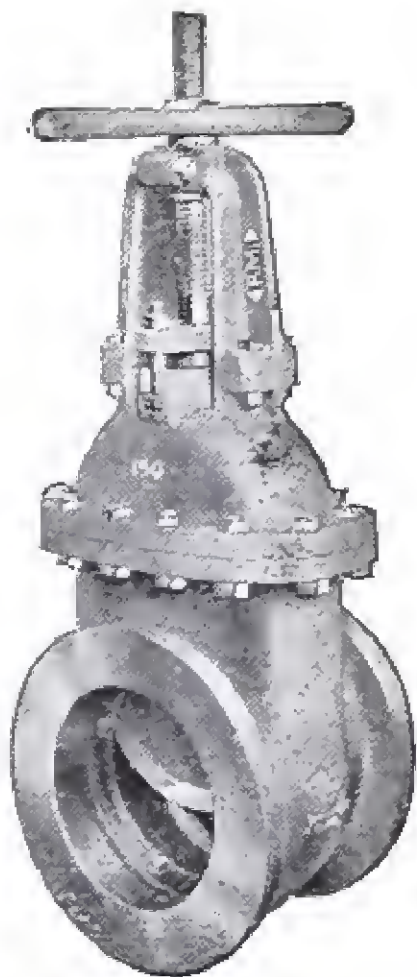


Fig. 404. FLANGED

Size.....Inches	2	2½	3	3½	4	4½	5
Fig. 403—Screwed, Steel Spindle.....Each	17.50	19.00	22.00	25.00	30.00	37.00	42.00
Fig. 404—Flanged, Steel Spindle.....Each	19.50	21.00	24.50	27.50	34.00	41.00	46.00
Fig. 403—Screwed, Bronze Spindle.....Each	19.00	20.50	23.50	27.00	32.50	40.00	45.00
Fig. 404—Flanged Bronze Spindle.....Each	21.00	22.50	26.00	29.50	36.50	44.00	49.00

Size.....Inches	6	7	8	9	10	12
Fig. 403—Screwed, Steel Spindle.....Each	48.00	64.00	80.00	105.00	122.00	160.00
Fig. 404—Flanged, Steel Spindle.....Each	52.00	68.00	84.00	110.00	127.00	168.00
Fig. 403—Screwed, Bronze Spindle.....Each	52.00	69.00	86.00	113.00	131.00	172.00
Fig. 404—Flanged, Bronze Spindle.....Each	56.00	73.00	90.00	118.00	136.00	180.00

GENUINE JENKINS GATE VALVES—With Hub Ends

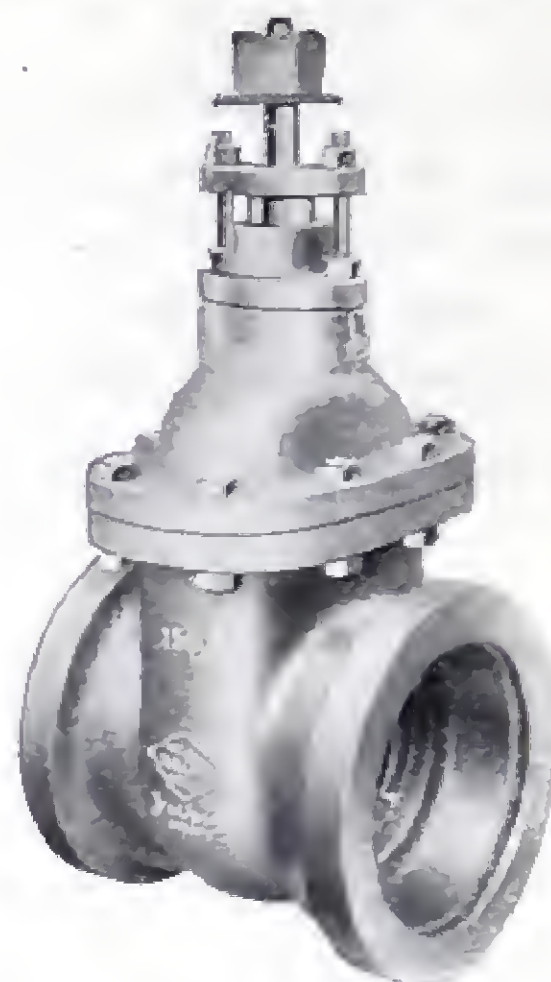
TYPE K

IRON BODY—COMPOSITION MOUNTED

125 lbs.
Working Steam
Pressure

175 lbs.
Working Water
Pressure

Suitable for
Cast Iron, Steel or
Wood Pipe



Stationary Spindle

“Open to the Left”

Can be furnished
“Open to the Right”
when so ordered

GOVERNMENT
APPROVED

Fig. 400

Size.....	Inches	2	3	4	5	6	7	8	10	12	14	16
Fig. 400...	Each	10.00	14.00	19.00	27.50	32.50	45.00	54.00	90.00	125.00	173.00	250.00

GENUINE JENKINS GATE VALVES

TYPE K

IRON BODY—COMPOSITION MOUNTED
WITH INDICATOR

125 Pounds
Working Steam Pressure



175 Pounds
Working Water Pressure

GOVERNMENT
APPROVED

Fig. 405. SCREWED
Fig. 406. FLANGED

Size.....	Inches	2	2½	3	3½	4	4½	5	6	7	8	10	12
Fig. 405—Screwed Each		17.50	19.00	22.00	25.00	30.00	37.00	42.00	48.00	64.00	80.00	122.00	160.00
Fig. 406—Flanged Each		19.50	21.00	24.50	27.50	34.00	41.00	46.00	52.00	68.00	84.00	127.00	168.00

Drilling Templates Page 64.

STANDARD SWING CHECK VALVES
IRON BODY—BRASS MOUNTED



125 Ponnds
Working Pressure



Fig. 535. SCREWED
Fig. 536. FLANGED

Fig. 537
WITH HUB ENDS

Size.....Inches	2½	3	3½	4	5	6	7	8	10
Fig. 535—Screwed.....Each	12.00	13.50	17.50	20.00	30.00	36.00	55.00	70.00	110.00
Fig. 536—Flanged.....Each	14.50	17.00	21.00	24.00	34.00	41.00	60.00	75.00	115.00
Fig. 537—With Hub Ends....Each		19.00		27.00	38.00	45.00		82.50	125.00

GENUINE JENKINS GLOBE VALVES
IRON BODY—COMPOSITION MOUNTED

SCREWED

FLANGED



150 Pounds
Working Steam Pressure

250 Pounds
Working Water Pressure

GOVERNMENT APPROVED



Fig. 141

Fig. 142

Size.....Inches	2	2½	3	3½	4	4½	5	6	7	8	9	10	12
Fig. 141 Screwed....Each	10.00	12.00	16.75	19.50	24.00	32.00	40.00	48.00	80.00	90.00	121.00	130.00	185.00
Fig. 142 Flanged....Each	11.75	14.00	18.50	21.50	26.00	34.00	42.00	50.00	80.00	90.00	121.00	130.00	185.00

GENUINE JENKINS ANGLE VALVES

IRON BODY—COMPOSITION MOUNTED

SCREWED

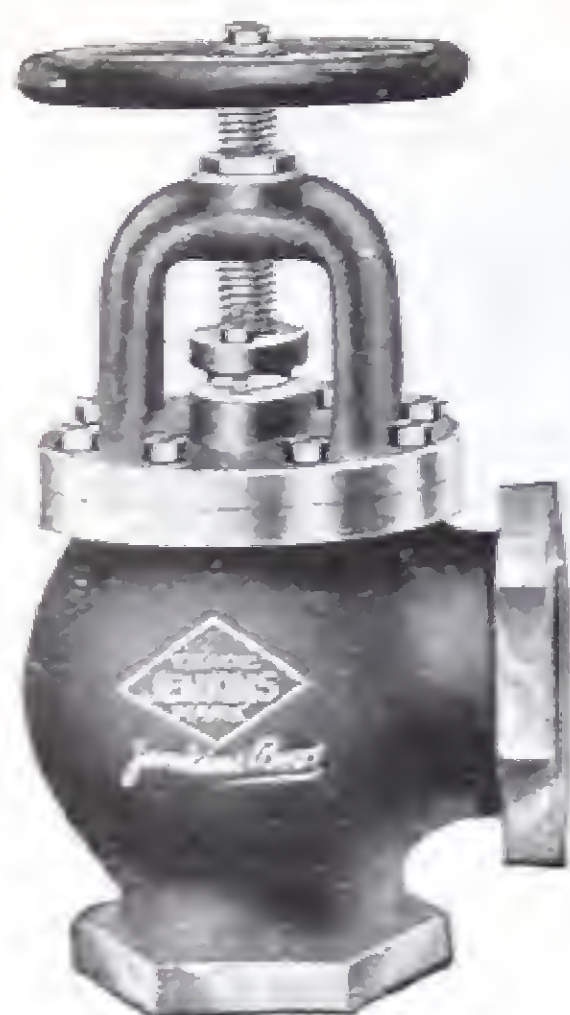


Fig. 143

FLANGED



Fig. 144

150 Pounds
Working Steam Pressure

250 Pounds
Working Water Pressure

GOVERNMENT APPROVED

Size	Inches	2	2½	3	3½	4	4½	5	6	7	8	9	10	12
Fig. 143														
Screwed... Each		10.00	12.00	16.75	19.50	24.00	32.00	40.00	48.00	80.00	90.00	121.00	130.00	185.00
Fig. 144														
Flanged... Each		11.75	14.00	18.50	21.50	26.00	34.00	42.00	50.00	80.00	90.00	121.00	130.00	185.00

GENUINE JENKINS CROSS VALVES

IRON BODY—COMPOSITION MOUNTED

SCREWED



Fig. 145

FLANGED



Fig. 146

150 Pounds
Working Steam Pressure

250 Pounds
Working Water Pressure

GOVERNMENT APPROVED

Size	Inches	2½	3	3½	4	4½	5	6	7	8
Fig. 145—Screwed... ..	Each	16.00	21.00	26.00	30.00	42.00	45.00	58.00	90.00	100.00
Fig. 146—Flanged.....	Each	19.00	24.00	29.00	33.00	45.00	48.00	62.00	90.00	100.00

Drilling Templates Page 64.

GENUINE JENKINS CHECK VALVES

IRON BODY

150 Pounds
Working Pressure

GOVERNMENT APPROVED

Fig. 151 HORIZONTAL
Fig. 152 ANGLE
Fig. 152A VERTICAL



Fig. 151



Fig. 152

Size.....Inches	2	2½	3	3½	4	4½	5	6	7	8
Figs. 151-152 and 152A Screwed Each	8.00	11.00	14.00	17.00	20.00	25.00	30.00	40.00	65.00	80.00
Figs. 151-152 and 152A Flanged Each	10.00	13.00	16.50	20.00	23.00	28.00	33.00	43.00	65.00	80.00

GENUINE JENKINS SWING CHECK VALVES

IRON BODY

FIRE UNDERWRITERS APPROVED

150 Pounds
Working Pressure



Fig. 477. FLANGED



Fig. 478. SCREWED

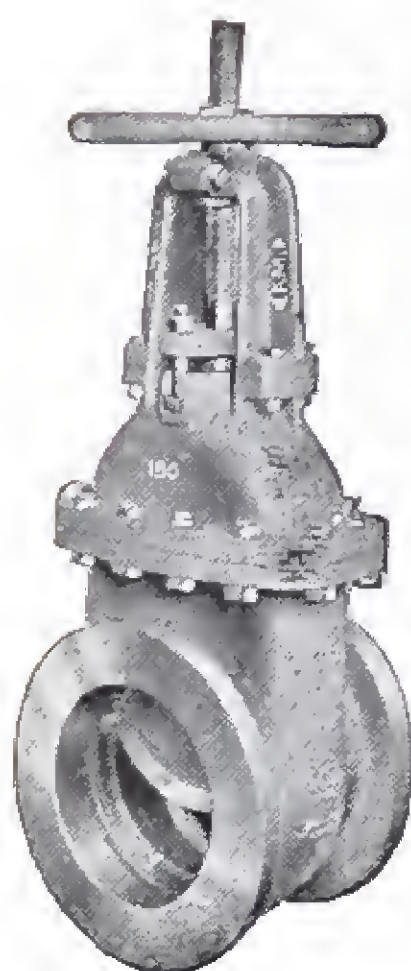
Size.....Inches	2½	3	3½	4	5	6	8	10	12
Fig. 477—Flanged.....Each	14.50	17.00	21.00	24.00	34.00	41.00	75.00	115.00	168.00
Fig. 478—Screwed.....Each	12.00	13.50	17.50	20.00	30.00	36.00	70.00		
Fig. 477A—Hub.....Each		19.00		27.00	38.00	45.00	82.50	125.00	185.00

GENUINE JENKINS GATE VALVES

UNDERWRITERS' APPROVED PATTERN

Iron Body—Composition Mounted
150 Pounds Working Pressure
Outside Screw and Yoke
Rising Spindle

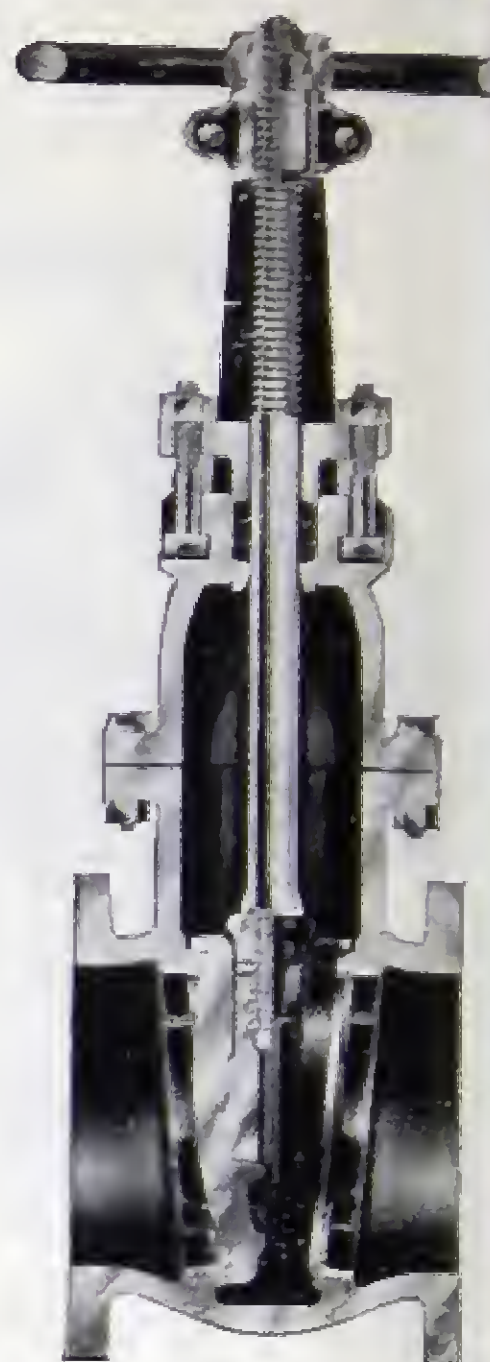
WITH BRONZE SPINDLES



Size.....Inches	2½	3	3½	4
Fig. 404FM—Flanged...Each	22.50	26.00	29.50	36.50
Size.....Inches	5	6	7	8
Fig. 404FM—Flanged...Each	49.00	56.00	73.00	90.00
Size.....Inches	10	12	14	
Fig. 404FM—Flanged...Each	136.00	180.00	255.00	

Fig. 404F.M.

Sectional



Drilling Templates, Page 64.

GENUINE JENKINS EXTRA HEAVY GATE VALVES

IRON BODY—COMPOSITION MOUNTED

Inside Screw
Stationary
Spindle

Outside Screw
and
Yoke
Rising Spindle

250 Pounds Working Steam Pressure
400 Pounds Working Water Pressure

GOVERNMENT APPROVED

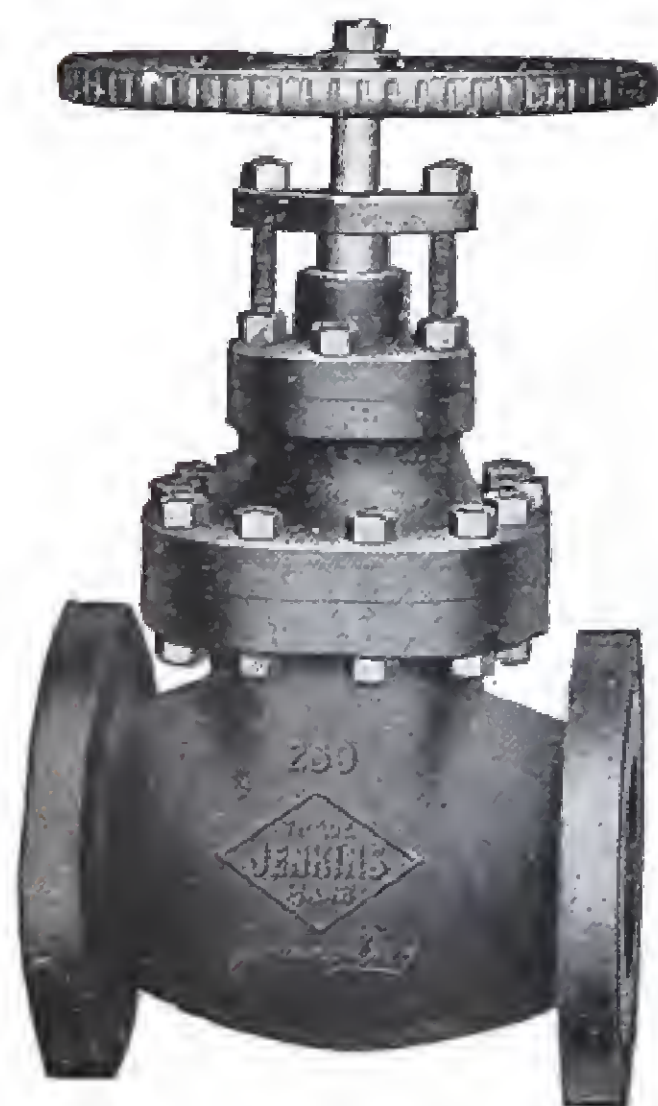
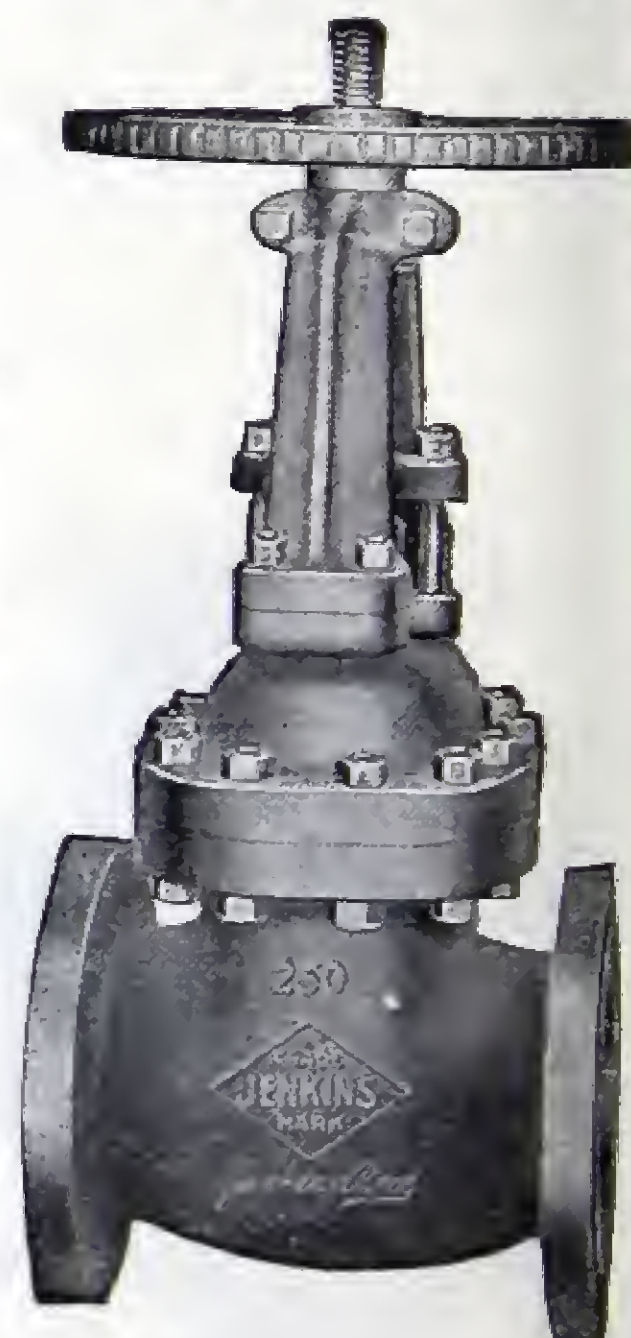


Fig. 203A. Screwed
Fig. 203A. Flanged

Fig. 204A. Screwed
Fig. 204. Flanged



Size.....Inches	2	2½	3	3½	4	4½	5	6	7	8	10	12
Fig. 203A—Screwed.....Each	27.50	33.00	45.00	57.00	60.00	77.00	85.00	100.00	125.00	155.00	250.00	
Fig. 203—Flanged Ea.	30.00	35.50	48.00	60.00	65.00	82.00	90.00	107.00	132.00	162.00	258.00	335.00
Fig. 204A—Screwed.....Each	35.50	41.00	54.00	67.00	72.00	92.00	100.00	115.00	140.00	180.00	275.00	
Fig. 204—Flanged Ea.	38.00	43.50	57.00	70.00	77.00	97.00	105.00	122.00	147.00	187.00	283.00	390.00

Drilling Templates Page 79.

GENUINE JENKINS EXTRA HEAVY GLOBE AND
ANGLE VALVES

IRON BODY—COMPOSITION MOUNTED

250 Pounds Working Steam Pressure
400 Pounds Working Water Pressure

GLOBE

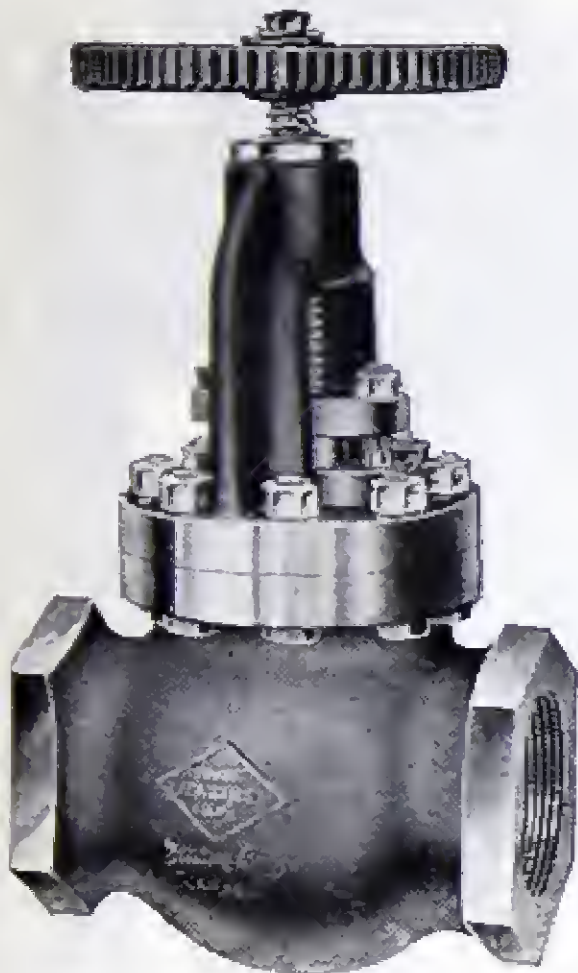


Fig. 162A.

ANGLE



Fig. 163A.

SCREWED
GOVERNMENT
APPROVED

Size.....Inches	2	2½	3	3½	4	4½	5	6	7	8	9	10	12
Figs. 162A and 163A.....each	16.00	19.00	24.00	28.00	38.00	44.00	53.00	70.00	100.00	110.00	165.00	180.00	230.00

GLOBE



Fig. 162

ANGLE



Fig. 163

FLANGED
GOVERNMENT
APPROVED

Size.....Inches	2	2½	3	3½	4	4½	5	6	7	8	9	10	12
Figs. 162 and 163 Each	18.00	21.00	26.00	30.00	40.00	46.00	55.00	73.00	100.00	110.00	165.00	180.00	230.00

GENUINE JENKINS EXTRA HEAVY CHECK VALVES

IRON BODY

SCREWED



Fig. 265

250 Pounds
Working Pressure

GOVERNMENT
APPROVED

FLANGED



Fig. 266

Fig. 267. ANGLE SCREWED

Fig. 268. ANGLE FLANGED

Size..... Inches	2	2½	3	3½	4	4½	5	6
Figs. 265 and 267—Screwed..... Each	15.00	17.00	21.00	26.00	34.00	38.00	46.00	65.00
Figs. 266 and 268—Flanged..... Each	16.00	19.00	23.00	28.00	36.00	40.00	48.00	67.00

GENUINE JENKINS EXTRA HEAVY SWING CHECK VALVES

IRON BODY

SCREWED



Fig. 338

250 Pounds
Working Pressure

GOVERNMENT
APPROVED

FLANGED

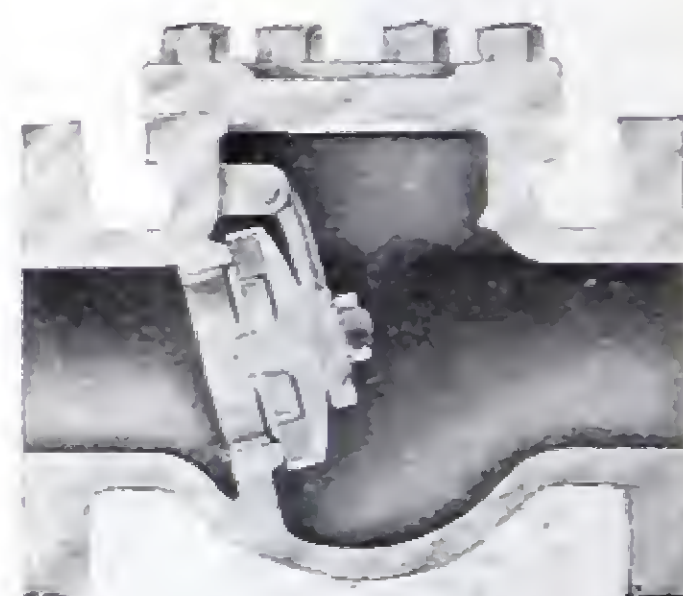


Fig. 339

Size..... Inches	2	2½	3	4	5	6	8
Fig. 338—Screwed..... Each	15.00	20.00	28.00	41.00	54.00	66.00	100.00
Fig. 339—Flanged..... Each	17.00	22.00	30.00	44.00	57.00	70.00	105.00

Drilling Templates, page 79.

“BEAVER” NON-RETURN STOP AND EQUALIZING VALVES

IRON OR SEMI-STEEL BODY—BRASS MOUNTED
250 Pounds Working Pressure

GLOBE



Fig. 538

ANGLE



Fig. 539

Regrinding or
Renewable
Copper Disc
GOVERNMENT
APPROVED

Size.....Inches	2½	3	3½	4	4½	5	6	7	8	10	12
Figs. 538 and 539.....Each	45.00	50.00	60.00	60.00	80.00	80.00	95.00	120.00	145.00	240.00	400.00

Y PATTERN
IRON OR SEMI-STEEL BODY—BRASS MOUNTED
250 Pounds Working Pressure

Regrinding or
Renewable
Copper Disc



Fig. 540

GOVERNMENT
APPROVED

Size.....Inches	2½	3	3½	4	4½	5	6	7	8	10	12
Fig. 540.....Each	45.00	50.00	60.00	60.00	80.00	80.00	95.00	120.00	145.00	240.00	400.00

Drilling Templates, page 64.

GENUINE JENKINS AUTOMATIC EQUALIZING STOP AND
CHECK VALVES
EXTRA HEAVY—GLOBE

250 Pounds
Working Pressure



FLANGED

Fig. 551

Size.....Inches	3	4	5	6	7	8
Fig. 551.....Each	45.00	60.00	80.00	95.00	120.00	145.00

EXTRA HEAVY—ANGLE

250 Pounds
Working Pressure



FLANGED

Fig. 553

Size.....Inches	3	4	5	6	7	8
Fig. 553.....Each	45.00	60.00	80.00	95.00	120.00	145.00

Drilling Templates, page 79.

RELIEF VALVES

BRONZE

Working Pressure up to 200 Pounds

FOR WATER
OR OIL



Fig. 541. Screwed



Fig. 542. Flanged

Size.....Inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Fig. 541—Screwed.....Each	4.75	5.63	7.50	9.38	11.25	15.00	37.50	45.00
Fig. 542—Flanged Inlet.....Each	....	....	....	12.38	14.75	20.35	44.00	55.30

In ordering, state pressure at which valve has to be set.



Fig. 88

MARSH
WATER PIPE LINE
RELIEF VALVE

Automatically vents all air but closes against discharge of water. Permits the air to escape while the line or tank is being filled with water. Admits a sufficient volume of air into the system to keep the water fresh and pure.

Prices on application.

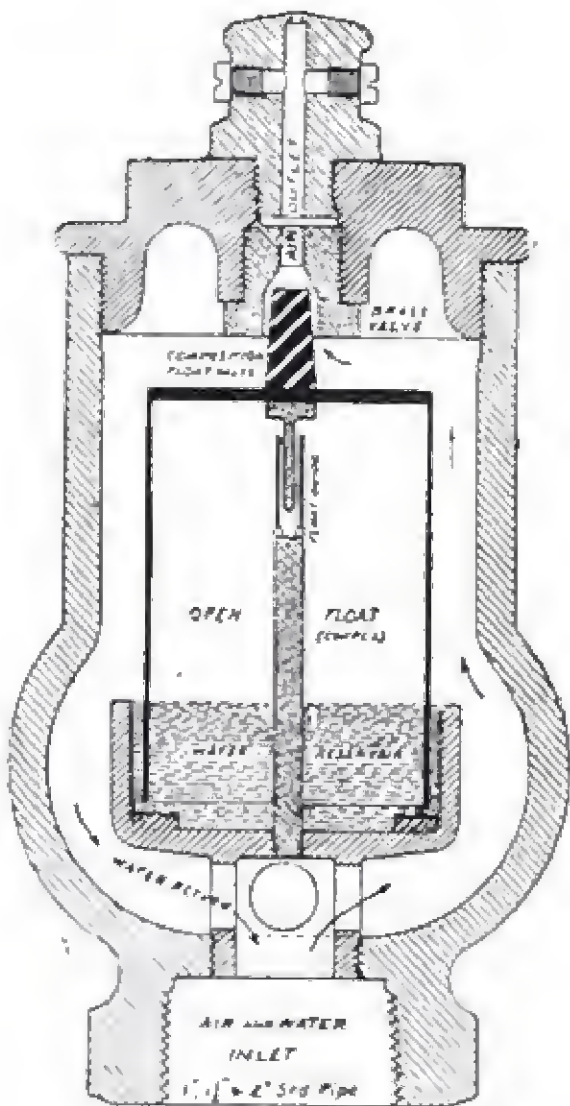


Fig. 88A

“J. M. T.” RELIEF VALVES

For Steam, Air or Hot Water
IRON BODY—BRASS MOUNTED



Fig. 543



Fig. 544

Size.....Inches	2	2½	3	3½	4
Fig. 543—Screwed or Flanged Inlet..Each	40.00	42.00	50.00	68.00	75.00
Fig. 544—Screwed or Flanged Inlet..Each	40.00	42.00	50.00	68.00	75.00
Diameter of Flanges.....Inches	6½	7½	8½	9	10

MORRISON WATER RELIEF VALVES

IRON BODY—BRASS MOUNTED

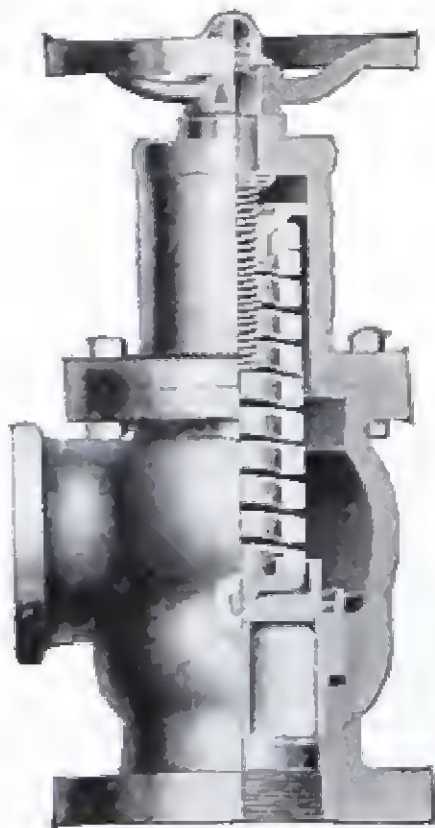


Fig. 545

For Water Works, Pumping Stations, Fire Pumps, Hydraulic Elevators, Stand Pipes, and wherever an Automatic Relief Valve is required to prevent water hammer or over pressure of water. It is made in a large pattern, with extra long spring, giving large relief.

Size.....Inches	2½	3	3½	4	4½	5	6
Fig. 545..... Each	42.00	50.00	68.00	75.00	100.00	120.00	170.00

POP SAFETY VALVES

GOVERNMENT
APPROVED



For Pressures
up to 30 Pounds

Fig. 546

Size.....	Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Fig. 546.....	Each	5.00	5.25	6.00	6.75	8.25	11.25	26.00	37.50	50.00	80.00

MODEL C

THERMO

Pressures
up to
200 Pounds



GOVERNMENT
APPROVED



Pressures
up to
30 Pounds

Fig. 716

Fig. 547

Size.....	Inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Fig. 716.....	Each		12.00	15.00	20.00	30.00		
Fig. 547.....	Each		6.00	6.75	8.25	11.25	26.00	37.50

When ordering, state pressure at which valve is to be set.

SAFETY VALVES
IRON BODY—BRASS MOUNTED
MORRISON IMPROVED



Fig. 732. Screwed

For Pressures
 up to 250 Pounds

GOVERNMENT
 APPROVED



Fig. 733. Flanged

Size.....Inches	1½	2	2½	3
Fig. 732—Screwed.....Each	30.00	30.00	40.00	55.00
Fig. 733—Flanged.....Each	30.00	30.00	40.00	55.00
Diameter of Flanges.....Inches	6½	7¼	8	9¼

In ordering, state pressure at which valve is to be set. Larger sizes made to order.

IRON BODY—BRASS MOUNTED
“J. M. T.”



Fig. 734. Screwed

For Pressures
 up to 200 Pounds

GOVERNMENT
 APPROVED
 UP TO 3 INCH



Fig. 735. Flanged

Size.....Inches	2	2½	3	3½	4
Fig. 734—Screwed.....Each	35.00	55.00	75.00	90.00	110.00
Fig. 735—Flanged.....Each	35.00	55.00	75.00	90.00	110.00
Diameter of Flanges.....Inches	7¾	9¼	10¼	10½	11

When ordering, state pressure at which valve is to be set.

SAFETY VALVES
IRON BODY—BRASS MOUNTED



Fig. 736. Screwed

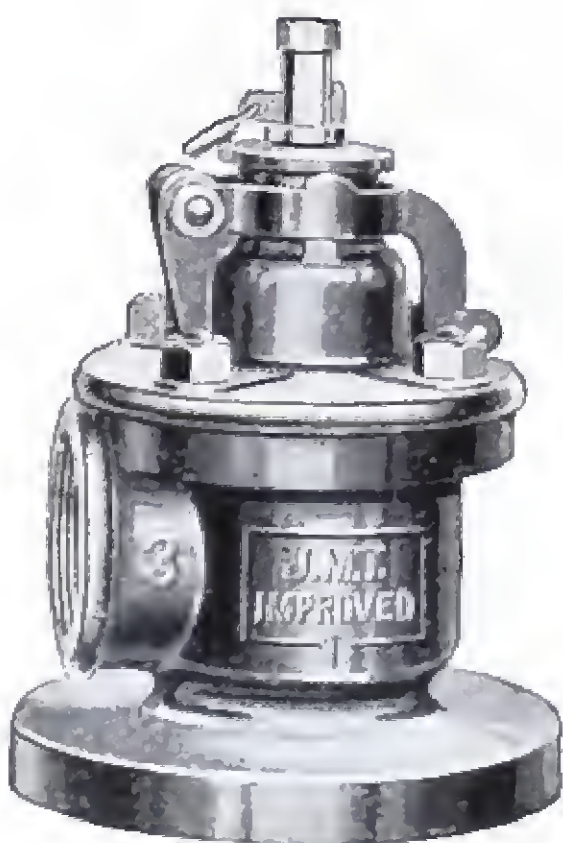


Fig. 737. Flanged

"J. M. T." IMPROVED
For Pressures up to
200 Pounds

GOVERNMENT
APPROVED

Size.....Inches	2	2 ½	3
Fig. 736—Screwed.....Each	35.00	55.00	75.00
Fig. 737—Flanged.....Each	35.00	55.00	75.00
Diameter of Flanges.....Inches	7 ½	8 ¼	9

LO-PRESS SAFETY VALVES
IRON BODY—BRASS MOUNTED



Fig. 747. Screwed



Fig. 748. Flanged

For Pressures
up to 15 Pounds

GOVERNMENT
APPROVED

Size.....Inches	1 ½	2	2 ½	3	3 ½	4
Figs. 747 or 748.....Each	30.00	35.00	55.00	75.00	90.00	110.00
Diameter of Flanges....Inches	5	6	7	7 ½	8 ½	9

When ordering, state pressure at which valve is to be set.

RADIATOR VALVES

QUICK OPENING
FOR HOT WATER

STRAIGHT PATTERN.



Fig. 548

WOOD WHEEL

STRAIGHT PATTERN
With Union



Fig. 550

Size Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Fig. 548—Rough Body N.P. all over.....ea.	2.90	2.90	3.70	5.00	7.10	10.85
Fig. 550—Rough Body N.P. all over.....ea.	3.90	3.90	4.70	6.75	9.10	13.95

ANGLE PATTERN



Fig. 549

WOOD WHEEL

ANGLE PATTERN
With Union



Fig. 552

Size.....Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Fig. 549—Rough Body N.P. all over.....ea.	2.95	3.25	3.90	5.00	6.30	10.50
Fig. 552—Rough Body N.P. all over.....ea.	3.25	3.70	4.50	5.75	7.30	12.00

All other finishes are special. To order only.

RADIATOR VALVES

FOR STEAM

GLOBE PATTERN



Fig. 554

COMPOSITION
DISCS
WOOD WHEEL

GLOBE PATTERN
With Union

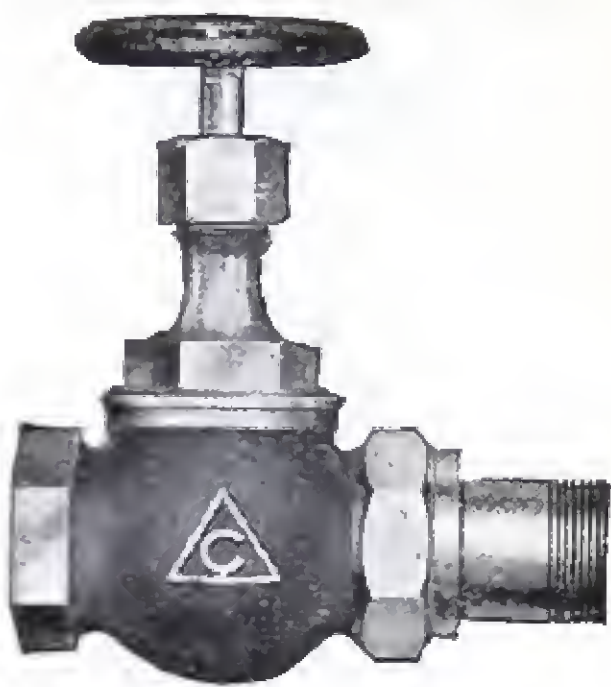


Fig. 556

Size.....Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Fig. 554—Rough Body N.P. all over.....	3.40	3.85	4.50	5.65	7.40	12.10
Fig. 556—Rough Body N.P. all over.....	3.70	4.30	5.10	6.40	8.40	13.60

ANGLE PATTERN



Fig. 555

COMPOSITION
DISCS
WOOD WHEEL

ANGLE PATTERN
With Union



Fig. 557

Size.....Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Fig. 555—Rough Body N.P. all over	3.40	3.85	4.50	5.65	7.40	12.10
Fig. 557—Rough Body N.P. all over.....	3.70	4.30	5.10	6.40	8.40	13.60

All other finishes are special. To order only.

CORNER RADIATOR VALVES

RIGHT OR LEFT HAND

WITHOUT UNION



Fig. 558 Right Hand

WITH UNION



Fig. 560 Right Hand

RENEWABLE DISCS
WOOD WHEEL

Size.....Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Fig. 558—Rough Body N.P. all over.....	2.65	3.15	3.90	5.40	7.40	11.95
Fig. 560—Rough Body N.P. all over.....	3.45	4.25	5.15	6.85	8.95	14.25

OFFSET PATTERN



Fig. 559 Left Hand

OFFSET PATTERN
With Union

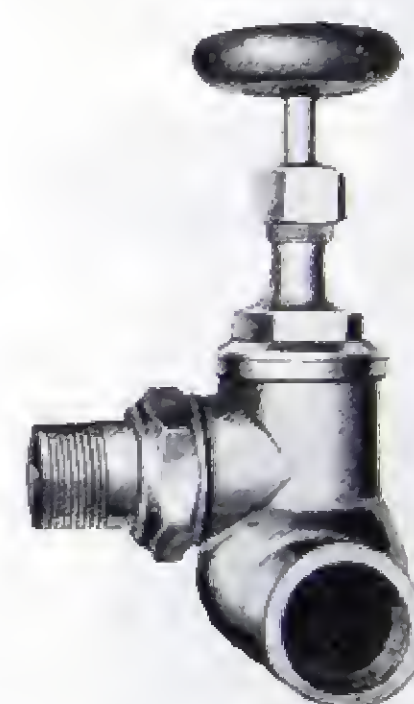


Fig. 561 Left Hand

RENEWABLE DISCS
WOOD WHEEL

Size.....Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Fig. 559—Rough Body N.P. all over.....	2.65	3.15	3.90	5.40	7.40	11.95
Fig. 561—Rough Body N.P. all over.....	3.45	4.25	5.15	6.85	8.95	14.25

All other finishes are special. To order only.

RADIATOR GATE VALVES
GOVERNMENT PATTERN

175 Pounds Working Steam Pressure



Fig. 562

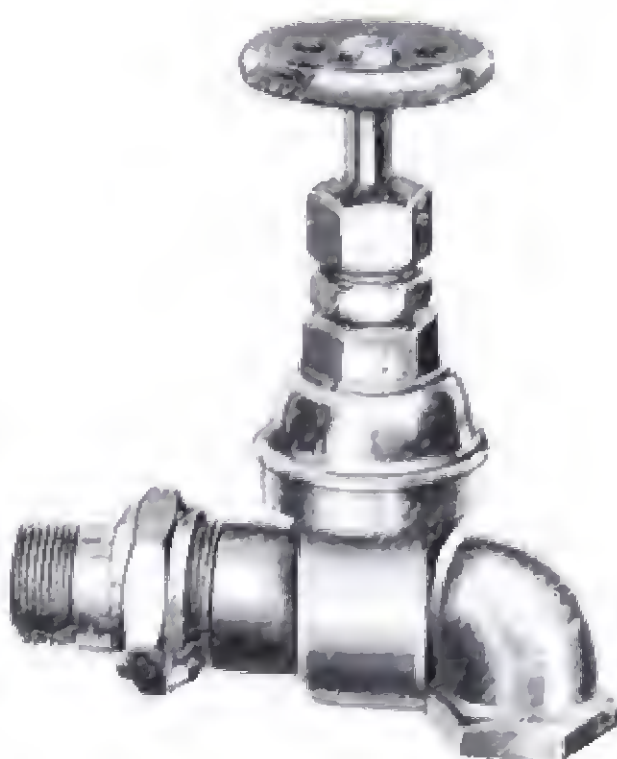


Fig. 563

Fig. 562. WITHOUT UNION

Size	Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Rough Body N.P. all over, Wood Wheel		2 50	3 05	3 95	4 85	5 80	8 80
Rough Body N.P. all over, Brass Wheel			3 80	4 75	5 85	7 20	10 35

Fig. 563. WITH UNION

Size	Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Rough Body N.P. all over, Wood Wheel		3 25	4 05	5 05	6 20	7 30	10 90
Rough Body N.P. all over, Brass Wheel			4 80	5 85	7 20	8 70	12 45

All other finishes are special. To order only.

RADIATOR GATE VALVES

PEET PATTERN

WOOD WHEEL



Fig. 564

Size.....Inches..	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Rough Body N.P. all over.....	2.40	3.00	3.85	5.00	6.60	9.65

All other finishes are special. To order only.

WEBER PATTERN

WOOD WHEEL

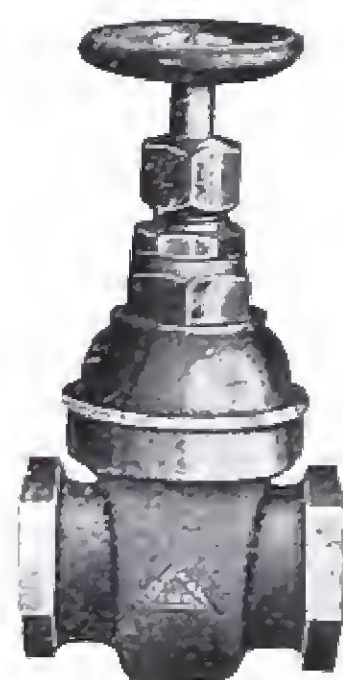


Fig. 565

With Union



Fig. 566

Size.....Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Fig. 565—Rough Body N.P. all over.....	2.40	3.00	3.85	5.00	6.60	9.65
Fig. 566—Rough Body N.P. all over.....	3.65	4.25	5.20	6.60	9.00	12.80

All other finishes are special. To order only.

RADIATOR VALVES
WITH LOCKSHIELDS

GLOBE PATTERN



Fig. 567

ANGLE PATTERN



Fig. 568

KEYS



Fig. 569

Fig. 569. KEYS

Size of Valve.....Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Fig. 569—N. P. ....Each	.40	.40	.40	.40	.50	.50	.60	.60

Radiator and Corner Valves can be furnished with Lockshields at the same price as for Wood Wheels.

RADIATOR UNION ELBOWS
BRASS

MALE UNION



Fig. 570

FEMALE UNION



Fig. 571

Size.....Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Figs. 570 and 571—Rough Body N.P. all over	1.75	2.00	2.50	3.30	4.25	7.20

All other finishes are special. To order only.

VALVE DISCS

JENKINS' DISCS

ROUND HOLE



Fig. 572

- No. 1—For Steam
- No. 2—For Hot Water
- No. 3—For Cold Water, Gas or Air.

DOUBLE D HOLE



Fig. 573

Size of Valve.....Inches	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4
Fig. 572—Round Hole.....Each	.06	.08	.08	.10	.12	.18	.24	.36	.48	.80	1.00	1.20
Fig. 573—Double D Hole.....Each	.06	.08	.08	.10	.12	.18	.24	.36	.48	.80	1.00	1.20

In ordering, specify whether for Steam, Hot or Cold Water, etc.

COMPODISKS

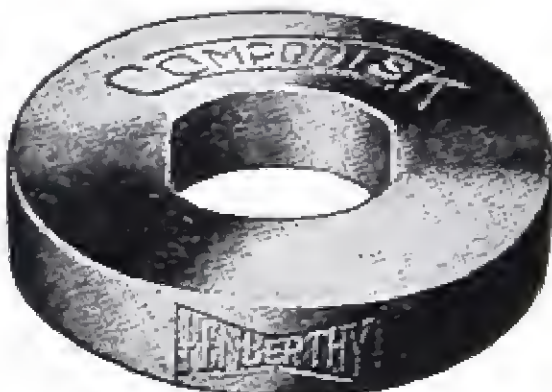


Fig. 574

Size of Valve.....Inches	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Fig. 574.....Each	.06	.06	.08	.08	.10	.12	.18	.24	.36	.48	.80

COPPER DISCS

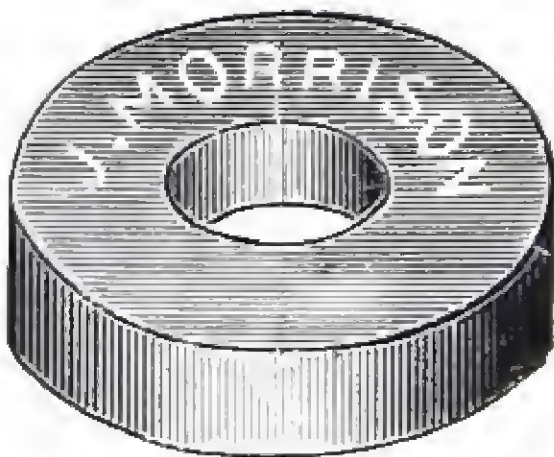


Fig. 575

Size of Valve.....Inches	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Fig. 575.....Each	.12	.12	.16	.16	.24	.30	.42	.60	.90	1.30	2.00

RADIATOR ANGLE SWING CHECK VALVES

WITH UNION—NICKEL PLATED



Fig. 576

Size.....	Inches	$\frac{1}{2}$	$\frac{3}{4}$
Fig. 576.....	Each	5.00	7.00

DOLE PACKLESS RADIATOR VALVES

STRAIGHT WAY GLOBE AND ANGLE
With Union

STRAIGHTWAY GLOBE



Fig. 577

ANGLE



Fig. 578

Size.....	Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Figs. 577 and 578—Rough N.P. all over.....	Each	3.70	4.30	5.10	6.40	8.40	13.60

DOLE PACKLESS RADIATOR VALVES

RIGHT AND LEFT HAND CORNER
VALVES WITH UNION



Fig. 579

Size.....Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Rough N.P. all over.....Each	4.10	4.75	5.60	7.05	9.25	15.00

LOCKSHIELD VALVE WITH UNION

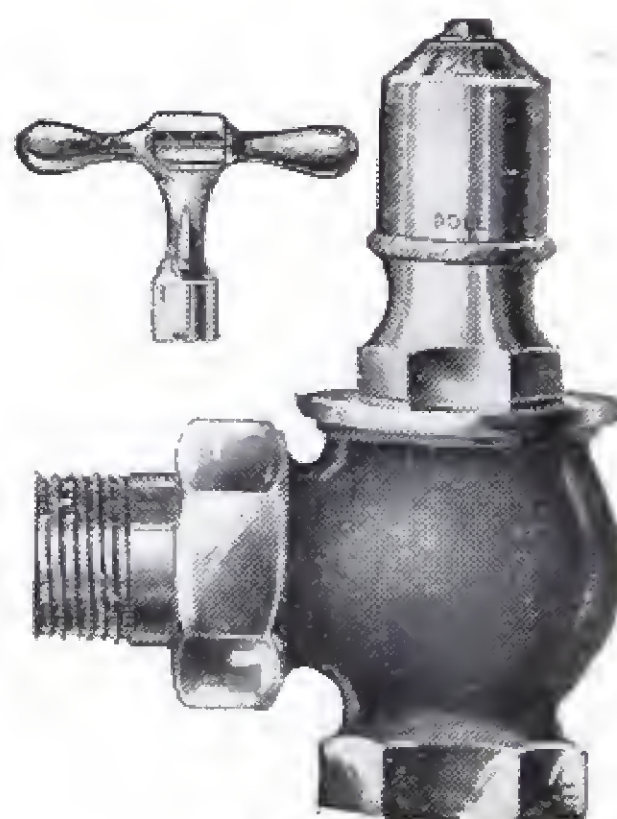


Fig. 580

Size.....Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Rough N.P. all over.....Each	3.70	4.30	5.10	6.40	8.40	13.60

DOLE PACKLESS RADIATOR VALVES

GATE VALVES WITH UNION

STRAIGHTWAY

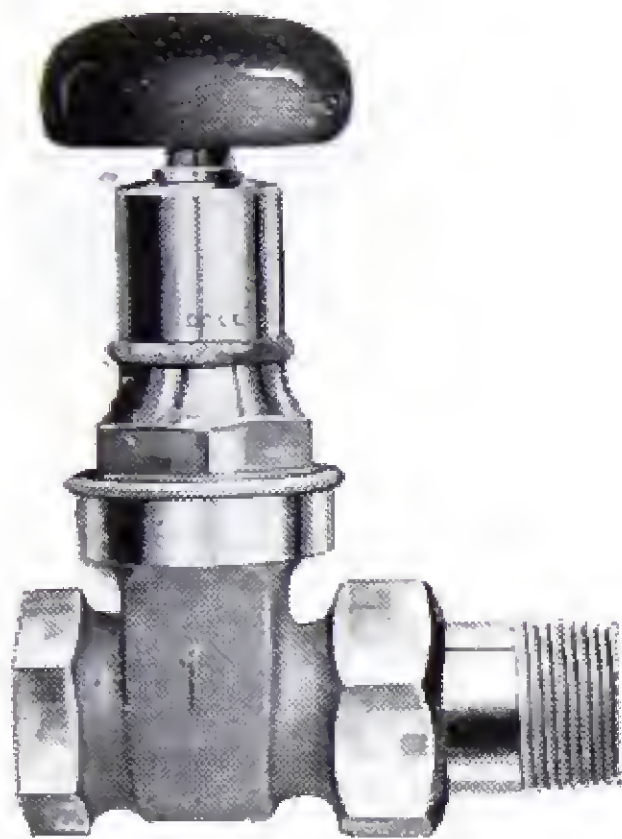


Fig. 581

ANGLE

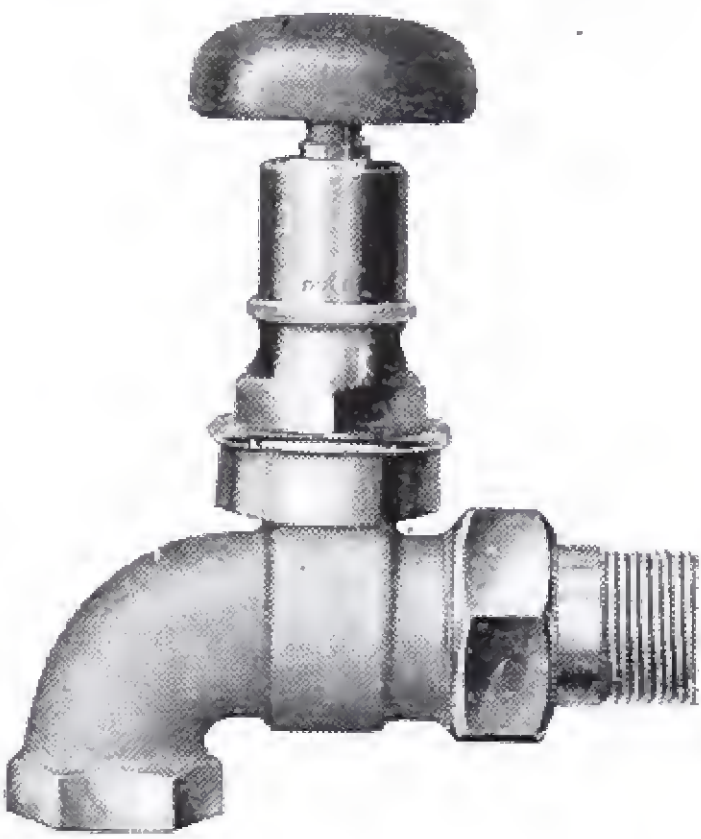


Fig. 582

Figs. 581 and 582. STRAIGHTWAY OR ANGLE

Size.....Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Rough, N.P. all over.....Each	3.65	4.25	5.20	6.60	9.00	12.80

GRADUATED VALVES
WITH UNION

LEVER HANDLE

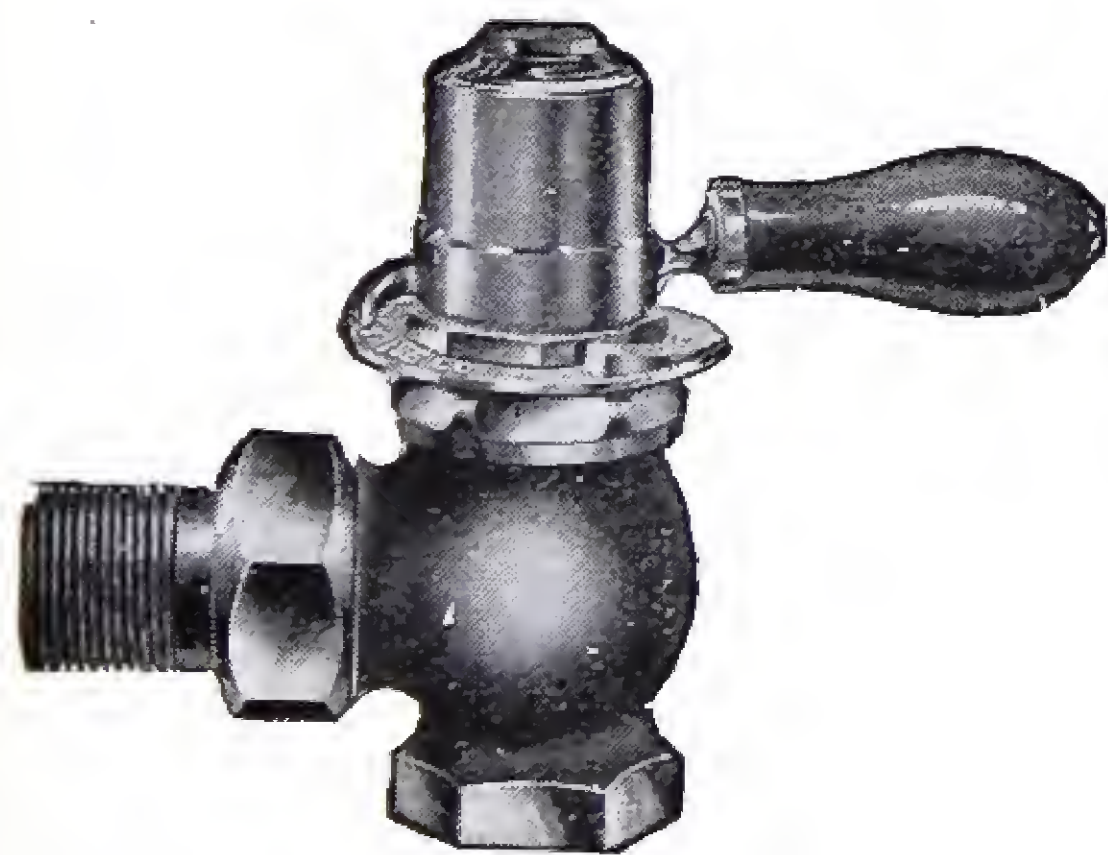


Fig. 583

KNOB HANDLE

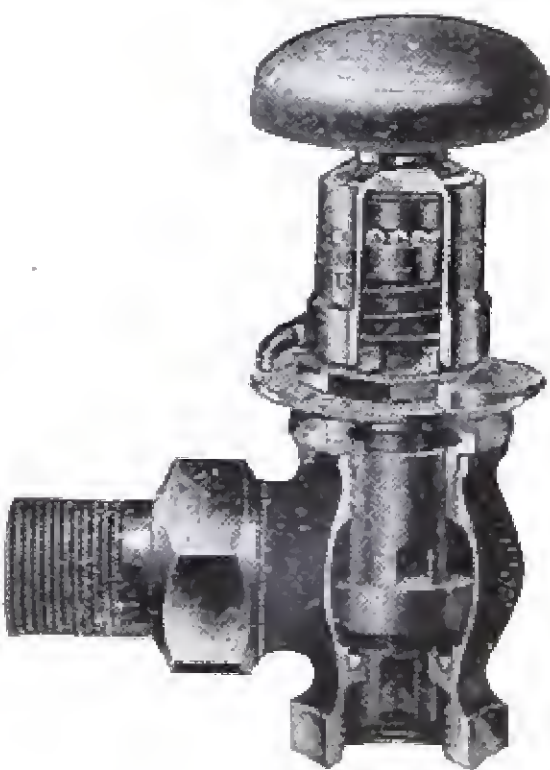


Fig. 584

Figs. 583 and 584. LEVER OR KNOB HANDLE

Size.....Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Rough, N.P. all over.....Each	3.70	4.30	5.10	6.40	8.40	13.60

AIR VALVES

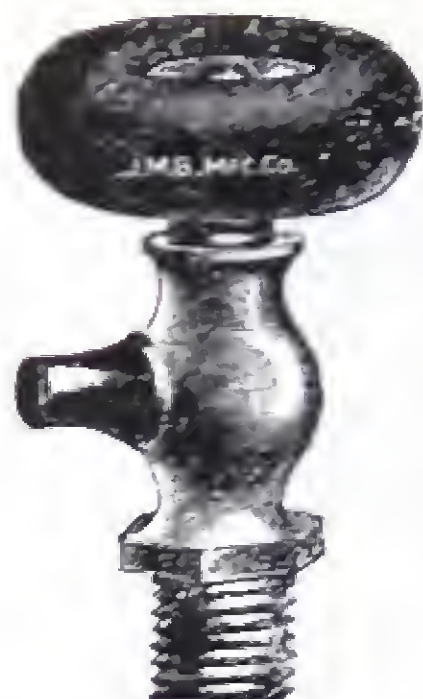


Fig. 585. Wood Wheel
Fig. 586. Brass Wheel



Fig. 587. Lock Shield



Fig. 588
Key for Fig. 587

Size	Inches	$\frac{1}{8}$	$\frac{1}{4}$
Fig. 585—Wood Wheel, Nickel Plated.....	Each		
Fig. 586—Brass Wheel, Nickel Plated.....	Each		
Fig. 587—Without Key, Nickel Plated.....	Each		
Fig. 588—Key for Fig. 587, Nickel Plated ..	Each		

Prices on application.

EXTRA HEAVY AIR VALVES

GOVERNMENT PATTERN



Fig. 589



Fig. 590

Size	Inches	$\frac{1}{8}$	$\frac{1}{4}$
Fig. 589—Without Key, Nickel Plated.....	Each	.75	.75
Fig. 589—With Key, Nickel Plated.....	Each	1.15	1.15
Fig. 590—Key, Finished.....	Each	.40	.40
Fig. 590—Key, Nickel Plated.....	Each	.45	.45

MARSH AUTOMATIC AIR VALVES

MARSH
ORIGINAL



Fig. 79

MARSH NO. 11
MARCO JUNIOR



Fig. 84

MARSH NO. 4 L.S.
LOCK AND SHIELD



Fig. 81

Fig. 79—Marsh Original Automatic Air Valve, $\frac{1}{8}$ " or $\frac{1}{4}$ "	} Prices on Application
Fig. 84—Marsh No. 11 Marco Junior Automatic Air Valve, $\frac{1}{8}$ "	
Fig. 81—Marsh No. 4 L.S. Lock and Shield Automatic Air Valve, $\frac{1}{8}$ "	

MARSH No. 1.
THERMODISK

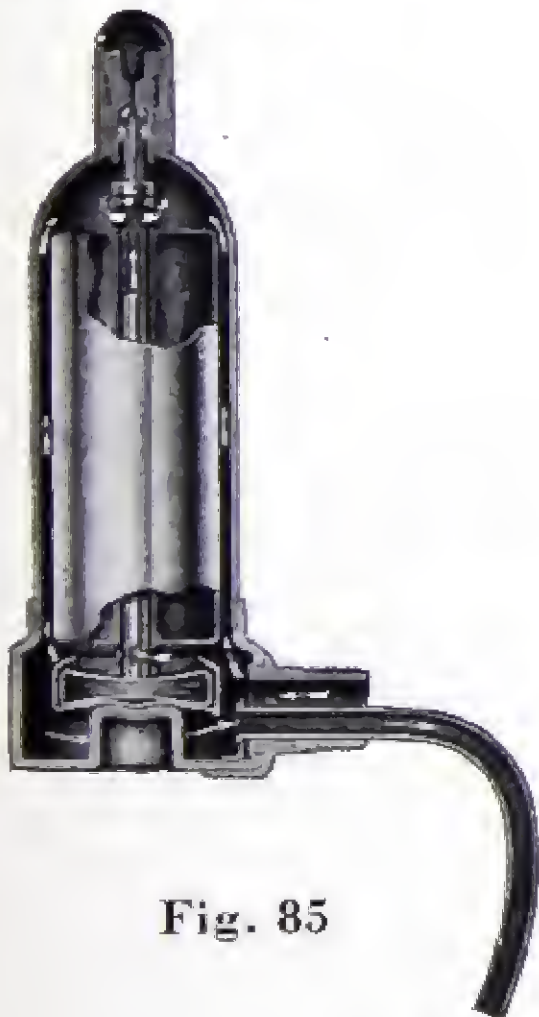


Fig. 85

MARSH No. 2
THERMODISK

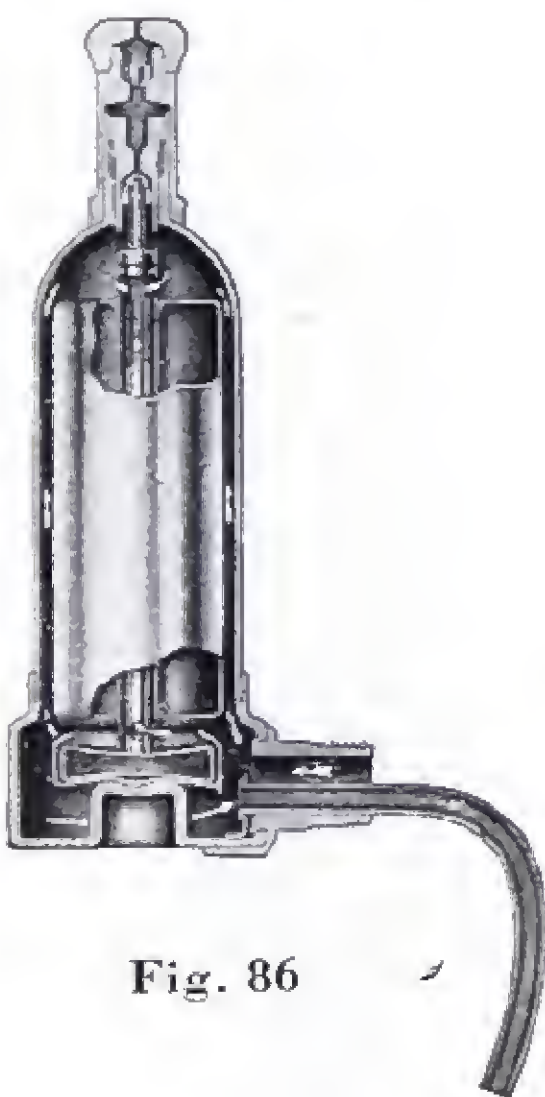


Fig. 86

MARSH No. 4
THERMODISK

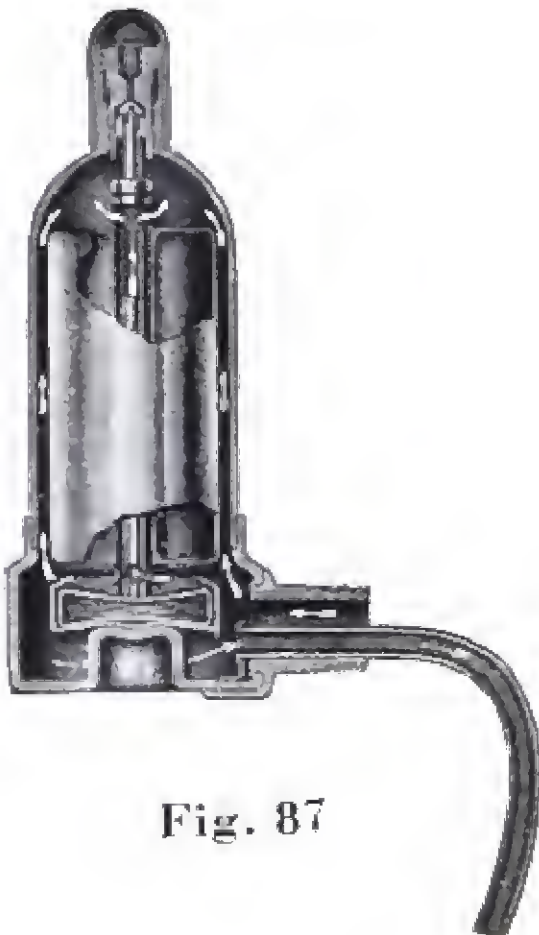


Fig. 87

Fig. 85—Marsh No. 1, Thermodisk Syphon Air Valve, $\frac{1}{8}$ "	} Prices on Application
Fig. 86—Marsh No. 2, Thermodisk Syphon Air and Vacuum Valve, $\frac{1}{8}$ "	
Fig. 87—Marsh No. 4, Thermodisk Syphon Air Valve, $\frac{1}{8}$ "	

MARSH AUTOMATIC AIR VALVES

MARSH ORIGINAL PAUL TOP ADJUSTMENT



Fig. 66

Sizes— $\frac{1}{8}$ x $\frac{1}{4}$, $\frac{1}{4}$ x $\frac{1}{4}$, $\frac{1}{4}$ x $\frac{3}{8}$,
 $\frac{3}{8}$ x $\frac{3}{8}$, $\frac{3}{8}$ x $\frac{1}{2}$, $\frac{1}{2}$ x $\frac{1}{2}$.

Prices on Application.

MARSH NO. 3 THERMODISK

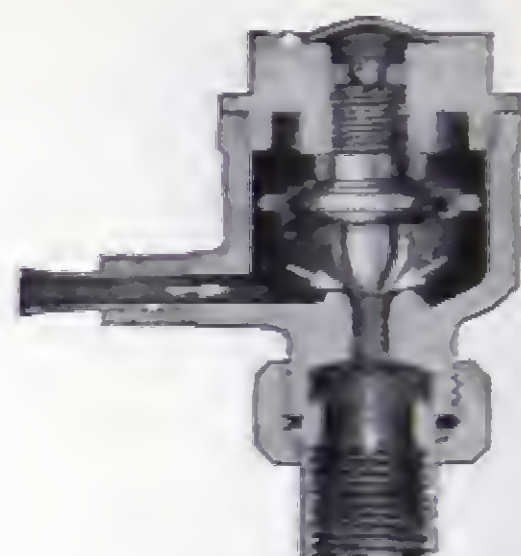


Fig. 83

Size— $\frac{1}{8}$ x $\frac{1}{4}$.

MARSH EXPANSION TANK AIR VALVE

OPEN FLOAT—AUTOMATIC

For Tanks, Coils or Pipe Lines
Hot or Cold Water



Fig. 82

Size— $\frac{1}{2}$ ".

Prices on Application.

High or
Low Pressure

MARSH AUTOMATIC AIR VALVES

NO. 5 THERMODISK RAPID VENT

RUSHES ALL THE AIR OUT AT ALL TEMPERATURES AND KEEPS IT OUT



Fig. 76

The most popular—general purpose—suitable for any job—vent on the market.

Works just right on any low pressure system of steam heating.

Gives new life to the old air-bound heating plant.

Assures longest life and satisfactory operation of the new installation.

A heavy cast brass body, sensitive, rapid vent for any location where a large volume of air is to be rapidly vented and where steam, vapor and water is to be kept in.

And the vacuum top keeps the air out.

Adjusted and tested at factory and shipped ready for installation, to work automatically from below atmosphere on up to 10 pounds steam pressure.

Made in two sizes—one with either $\frac{1}{4}$ -inch or $\frac{3}{8}$ -inch male bottom connection—and the larger size with either $\frac{1}{2}$ -inch or $\frac{3}{4}$ -inch male bottom connecton.

NO. 6. THERMODISK QUICK VENT

CANNOT
BLOW
SHUT ON
AIR PACK

HEAVY
CAST
BRASS
BODY

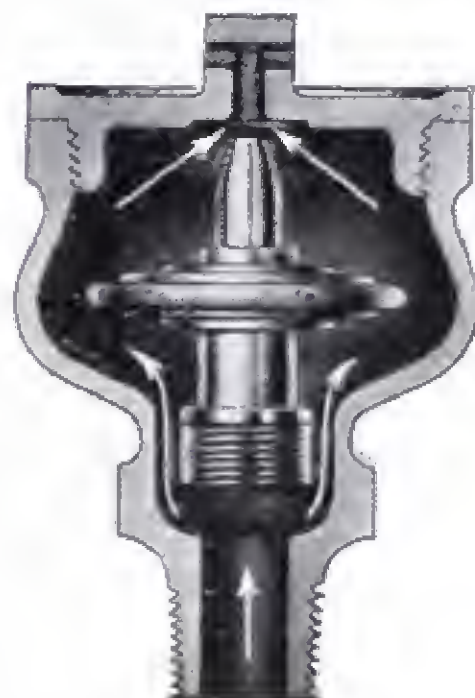


Fig. 77

VENTS
AT THE
SLIGHTEST
PRESSURE

LARGE
PORT FOR
ESCAPE
OF AIR

CLOSES INSTANTLY FOR STEAM

For installation at any high point where large volume of air must be rapidly vented.

Constructed without float, does not close against water.

Adjusted and tested at factory to operate automatically at all steam pressures up to 10 pounds.

Made $\frac{1}{4}$ -inch and $\frac{3}{8}$ -inch Male Bottom connection.

Prices on Application.

MARSH NO. 7 AIR ELIMINATOR



Fig. 78

THE BIG FREE VENT For Air at all Temperatures FOR THE RETURN MAIN

Free and unlimited Vent of all air. Hot or Cold, cannot water log, does not spit or leak water, and closes instantly for Steam or Vapour.

Adjusted and tested at the factory and shipped ready for installation to work automatically from below atmosphere on up to 10 pounds steam pressure.

Made in $\frac{3}{4}$ " and 1" Male Bottom connection.

Prices on Application.

MARSH THERMOSTATIC TRAPS

MARSH
NO. 1 REFLUX



Fig. 73
FOR SMALL UNITS

MARSH
NO. 2 REFLUX

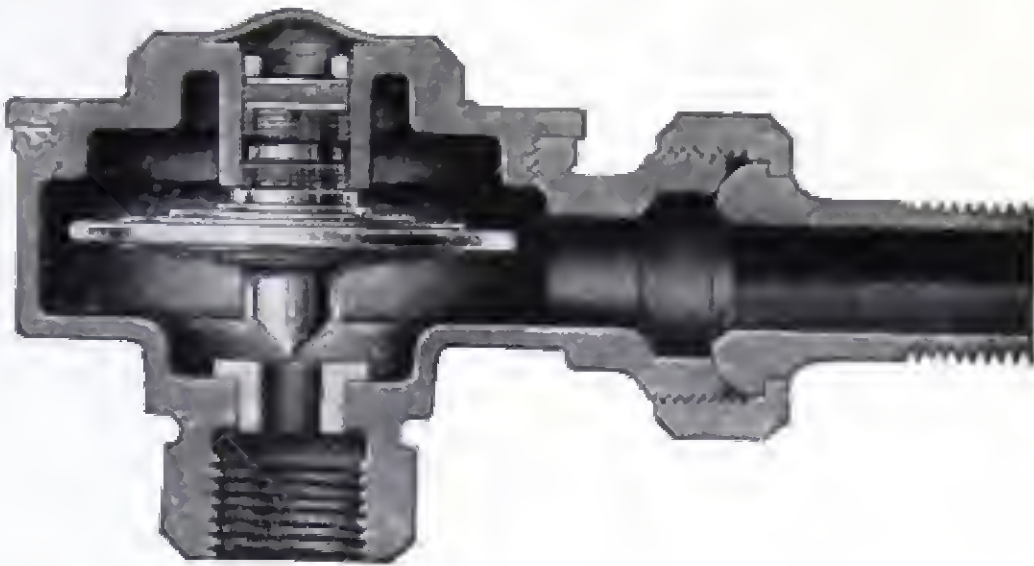


Fig. 74

FOR LARGE AND SMALL UNITS

Angle, Straightway, Offset Globe, R. H. or L. H. Corner Patterns	Fig. 73 Sq. Ft. C. l. Radiation	Fig. 74 Sq. Ft. C. l. Radiation
1/2" x 1/2" Connection.....	150	200
3/4" x 3/4" Connection.....	300	500
1" x 1" Connection.....	600	1000

MARSH NO. 3 REFLUX

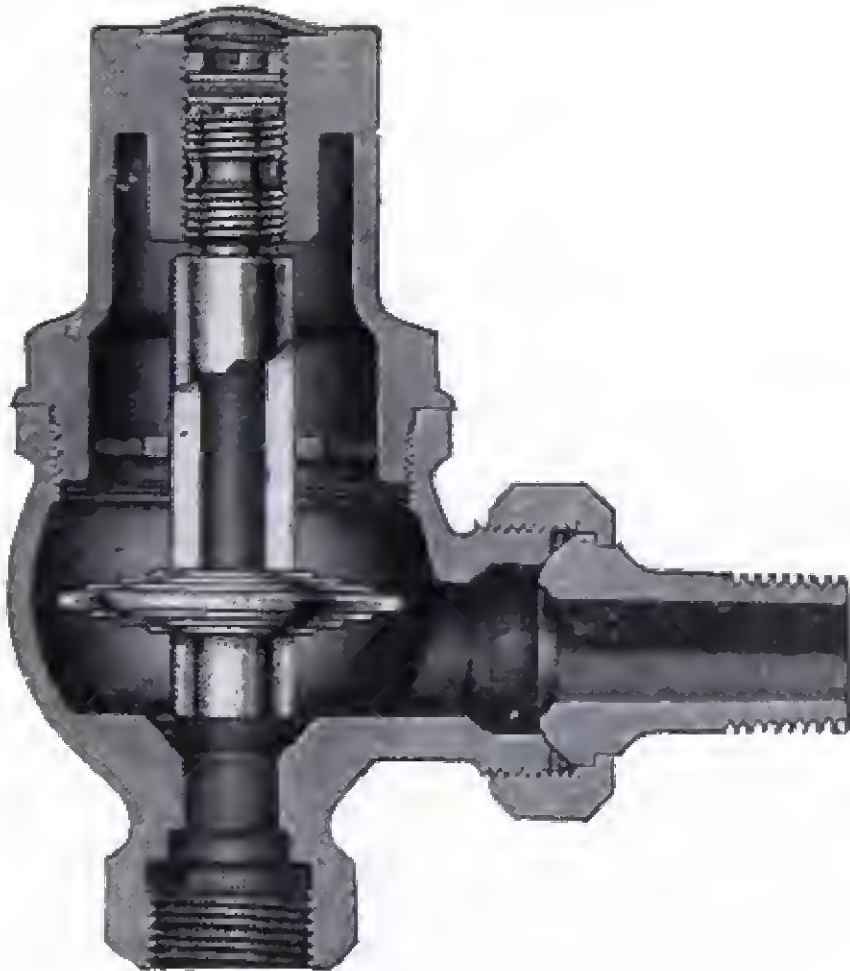
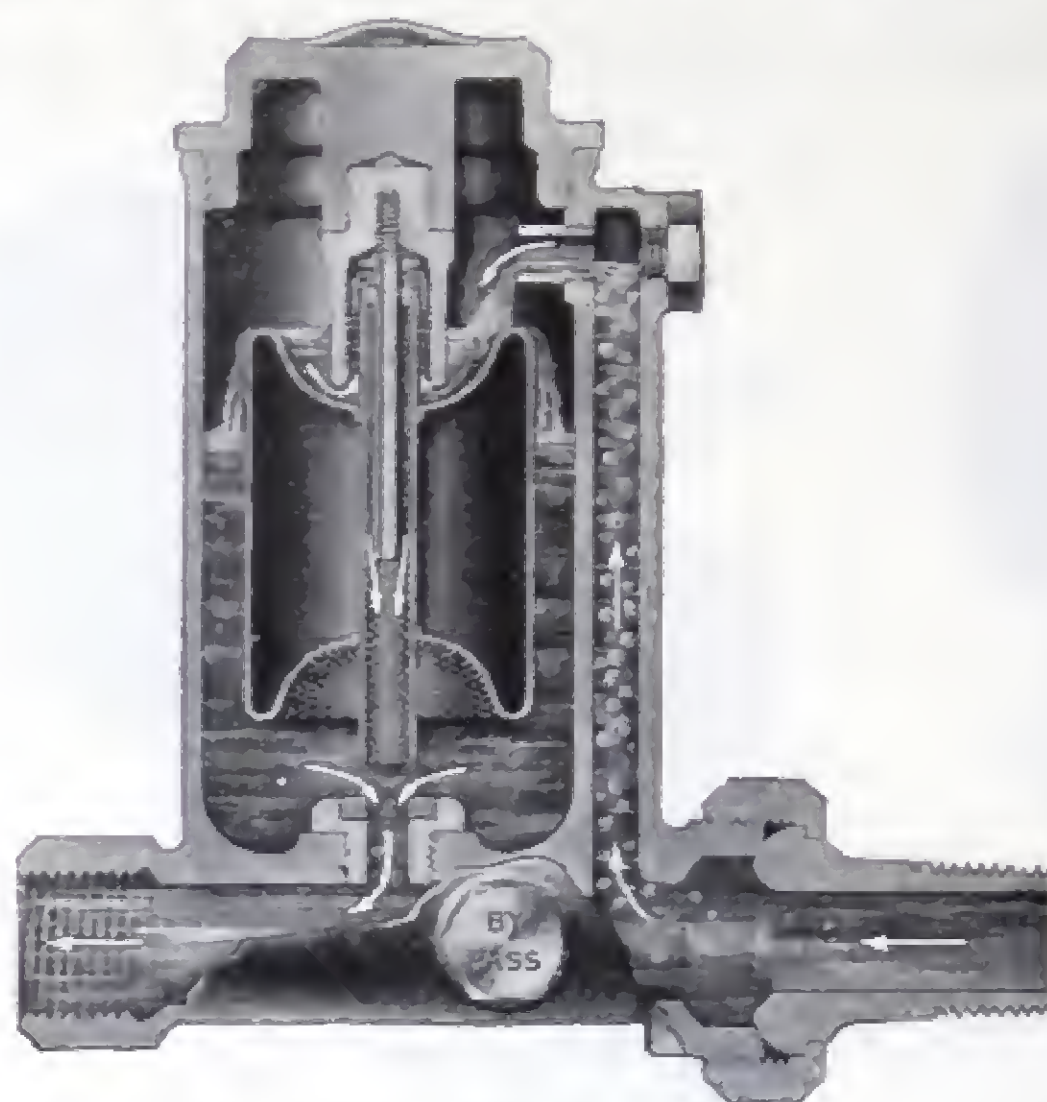


Fig. 75
FOR LARGE UNITS

Angle, Offset Globe, R. H. or L. H. Corner Patterns	Fig. 75 Sq. Ft. C. l. Radiation
1/2" x 1/2" Connection.....	300
3/4" x 3/4" Connection.....	600
1" x 1" Connection.....	1200

MARSH NO. 5 DUPLEX WATER SEAL FLOAT TRAPS



ESPECIALLY
ADAPTABLE FOR
DRIPS AND LARGE
COILS

Fig. 171

Size	Sq. Ft. C. I. Radiation
$\frac{1}{2}$ " x $\frac{1}{2}$ " Trap...	400
$\frac{3}{4}$ " x $\frac{3}{4}$ " Trap..	800
1" x 1" Trap.	1600

MARSH AUTOMATIC SYPHON RETURN TRAP

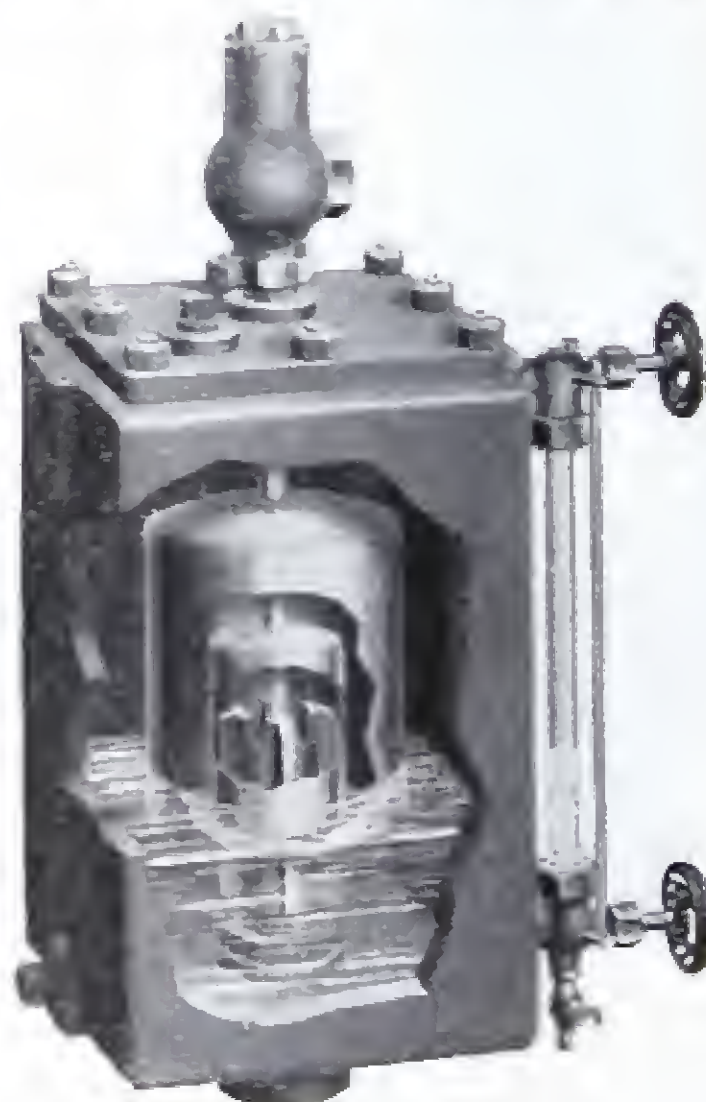
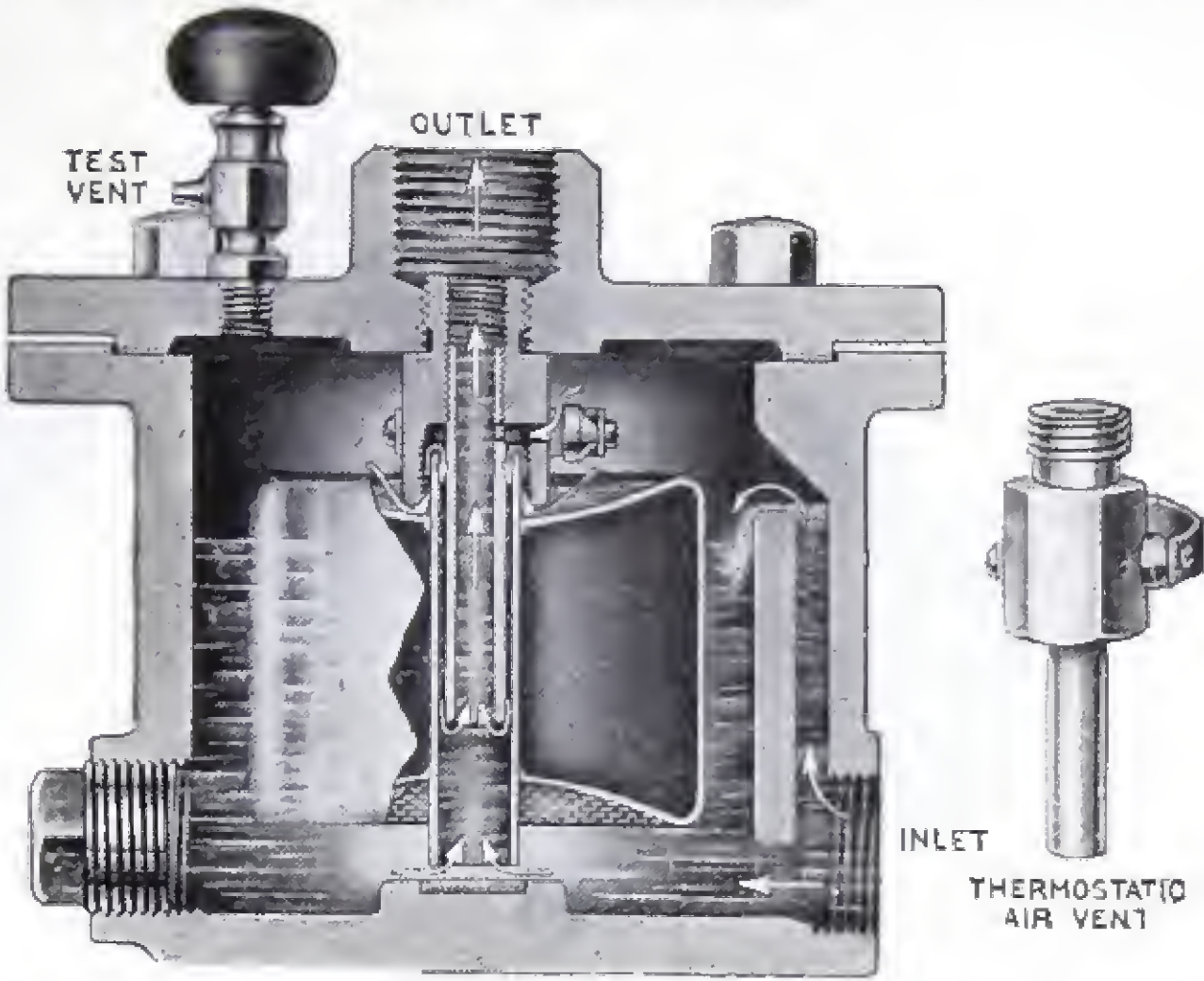


Fig. 591

Number of Trap	Inlet	Outlet	Steam Inlet	Sq. Ft. C. I. Radiation	Lbs. Water Per Hour
1.....	$1\frac{1}{4}$	$1\frac{1}{4}$	$\frac{3}{4}$	2500	625
2.....	$1\frac{1}{4}$	$1\frac{1}{4}$	$\frac{3}{4}$	4000	1000
3.....	$1\frac{1}{2}$	$1\frac{1}{2}$	1	6000	1500
4.....	2	2	1	8000	2000

Prices on Application.

MARSH DUPLEX WATER SEAL BLAST TRAPS
LOW PRESSURE



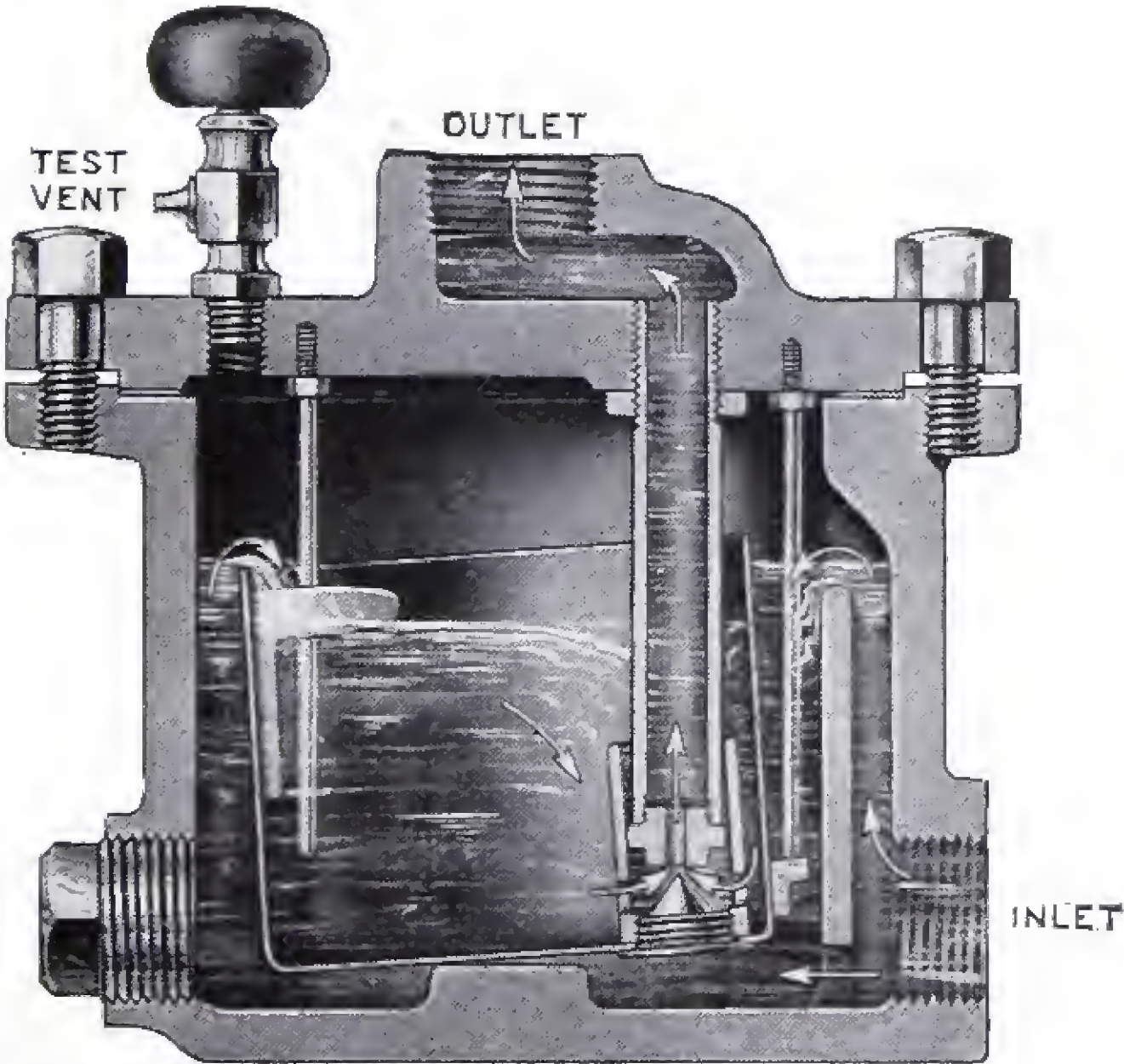
Pressures from
below atmos-
phere up to
25 lbs.

For
Direct or
Indirect Coils

Fig. 170

Size	Sq. Ft. C. I. Radiation	Pounds of Water Per Hour
3/4" Trap.....	2800	700
1" Trap.....	4000	1000
1 1/4" Trap.....	7200	1800
1 1/2" Trap.....	14000	3500

MARSH MEDIUM PRESSURE STEAM TRAPS



Pressures
up to 100 lbs.

For Drips, Coils,
Cooking
Apparatus

Fig. 170A

Size	Pounds of Water Per Hour at 75 lbs. Pressure
3/4" Trap.....	500
1" Trap.....	750
1 1/4" Trap.....	1500
1 1/2" Trap.....	3000

Prices on Application.
[179]

ANDERSON MODEL "D" STEAM TRAP

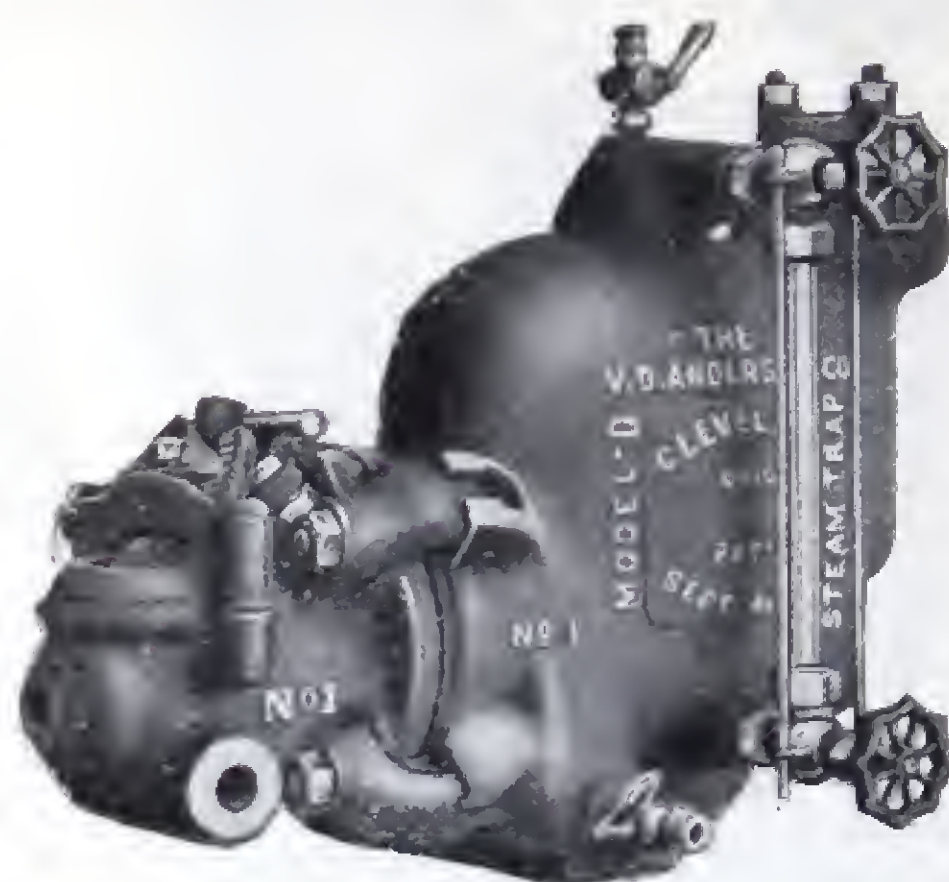


Fig. 593

The Model "D" Steam Trap automatically and continuously drains the condensation from Radiators, Steam Coils or Heating Systems as fast as it accumulates, without reducing the pressure or permitting the escape of steam, thus maintaining the heating at a uniform temperature.

It is so constructed that both valve and valve seat can be changed from exhaust pressure to the highest boiler pressure, without breaking a steam joint or pipe connection. For example, should you have a Trap arranged to work from 30 lbs. down and you wish to use it for pressure of 150 lbs. down, it is only necessary to specify a valve and seat for this pressure, both of which can be installed in less than five minutes.

The Valve Head is sealed and covered at all times by at least 3 inches of water.

A removable strainer is provided, which prevents pieces of scale, etc., from entering the Trap.

A water glass is also provided, whereby the working of the Trap can be seen.

A By-Pass is part of the equipment, plainly marked.

All parts are interchangeable.

The **Standard Valve Opening** is adapted for pressures from 150 lbs. down to 30 lbs. The **Low Pressure Valve Opening** is for pressures from 30 lbs. down. For pressures below 10 lbs. or above 150 lbs. special valve openings can be supplied.

In ordering, state maximum pressure at the Trap.

PRICE LIST

Number of Trap.....	1	2	3	4	5	6	7
Fig. 593.....Each	26.50	28.50	36.00	43.00	60.00	82.00	132.00
Size of Pipe Connection.....Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$
Maximum Discharge per hour in lbs.....	1,500	2,400	4,000	5,600	8,000	12,000	24,000
Greatest No. of Square Feet of Surface that should be applied.....	1,000	1,600	2,600	4,700	7,000	10,000	20,000
Greatest No. of Lineal Feet of 1-inch Pipe Surface that should be applied.....	3,000	5,000	8,000	14,000	20,000	30,000	60,000
Shipping weight, boxed, lbs.....	110	114	195	211	335	394	640

“NASON” STEAM TRAPS

Class B. 1 to 20 lbs.



Fig. 594

Class C. 20 to 70 lbs.



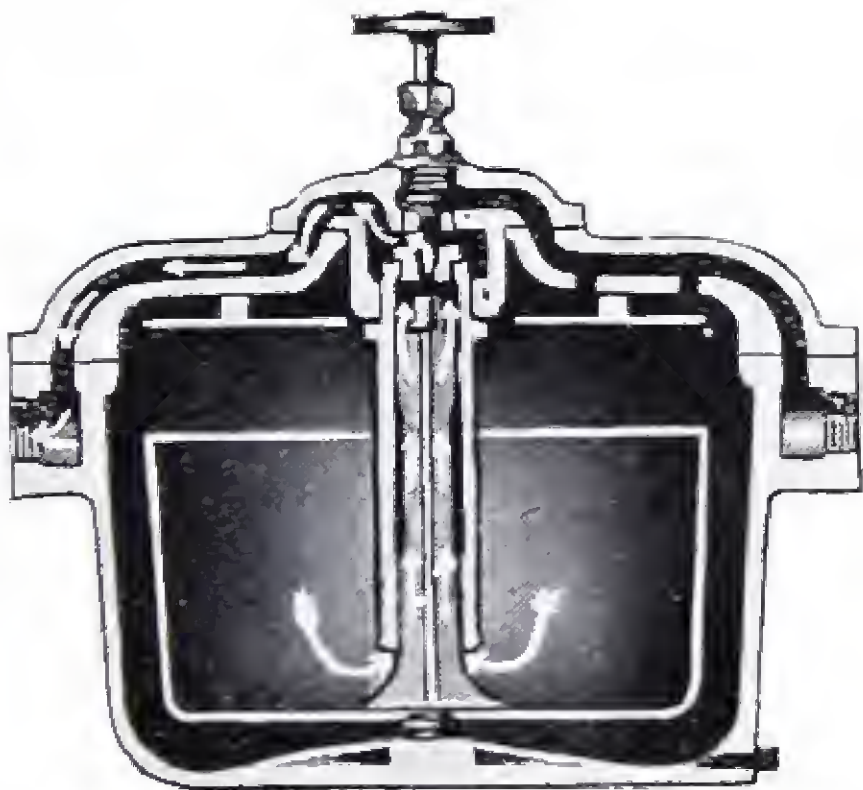
Fig. 595

Sidelug. 40 to 150 lbs.



Fig. 596

The function of these Traps is to receive and automatically discharge the condensation from heating surfaces of every description without loss of pressure or waste of steam. They are made to suit various pressures:—Class B, from 1 to 20 lbs.; Class C, from 20 to 70 lbs. and Sidelug from 40 to 150 lbs.



Sectional View

Number of Trap.....	1	2	3	4	5
Fig. 594—Class B.....Each	16.00	20.00	27.50	42.50	70.00
Fig. 595—Class C.....Each	16.00	20.00	27.50	42.50	70.00
Fig. 596—Sidelug.....Each	16.85	21.30	29.25	45.50	74.75
Size of Pipe Connection.....Inches	½	¾	1	1¼	1½
No. of ft. of 1-in. Pipe they will Drain.....	1,500	3,450	5,250	7,650	12,000
Discharge, lbs. of water per minute.....	4½	6½	10	15½	23

All parts are interchangeable.
In ordering, state style of trap and pressure conditions.

UNIVERSAL STEAM TRAPS

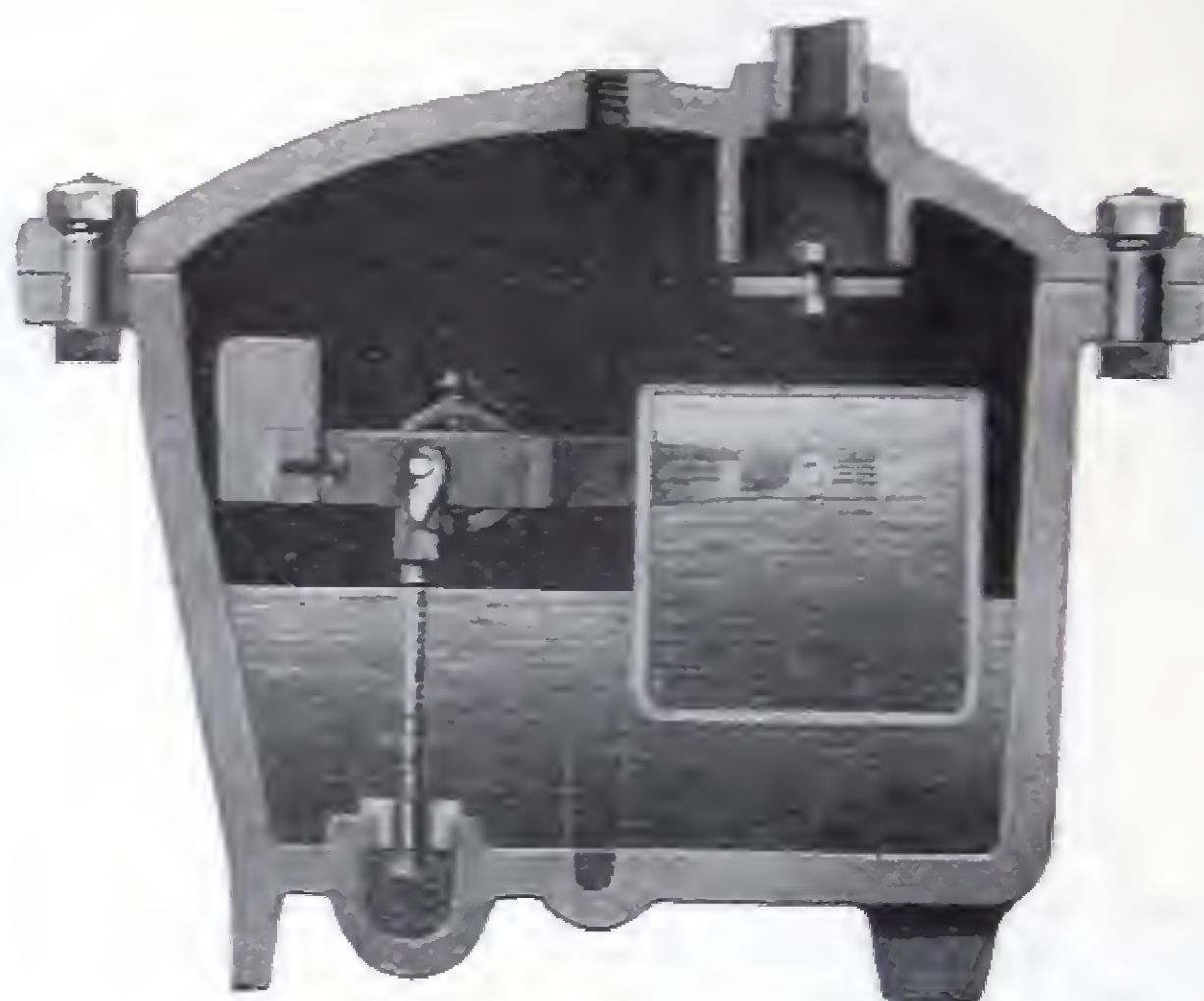


Fig. 169

The Universal Steam Trap will work on any pressure from $\frac{1}{2}$ lb. to 150 lbs. per square inch. This does away with the necessity of ordering Traps to suit certain pressures.

The water on entering the Trap falls into the open bucket or float. The weight of the water in the bucket overcomes the counter-weight and closes the valve. As more water enters the Trap it overflows the bucket and fills the body of the Trap, whereby the bucket is caused to rise, the Valve is opened and the pressure in the Trap forces the water through the open valve. As the water escapes the bucket is again lowered and the operation is automatically repeated.

When operating under high pressure the water only rises a few inches around the outside of bucket, and on low pressure it rises to within an inch of the top before valve will open.

PRICE LIST AND CAPACITIES AT $\frac{1}{2}$ TO 1 POUND STEAM PRESSURES

Fig.	No.	Inlet and Outlet.	Diameter of Valve Opening	Pounds Water per Hour	Capacity in Square Feet, Direct Radiation	Capacity in Linear Feet of 1-inch Pipe	Capacity in Linear Feet of 1½-inch Pipe	Capacity in Square Feet of Blower Coils	Capacity in Linear Feet 1-inch Pipe Blower Coils.	Capacity in Linear Feet 1¼-inch Pipe Blower Coils	Weight	Price, Each
169	0	1 1½	3 3½	300	800	2,400	1,700	140	400	300	100	16.00
169	1	1 1½	3 3½	450	1,200	3,600	2,560	200	600	460	150	22.00
169	2	1 1½	3 3½	1,000	3,000	9,000	6,900	500	1,500	1,150	200	32.00
169	3	1 1½	3 3½	1,500	4,500	13,500	10,350	750	2,250	1,725	220	45.00
169	4	1 1½	3 3½	2,160	6,300	18,900	14,490	1,050	3,150	2,415	250	63.00
169	5	1 1½	3 3½	2,800	8,400	25,200	19,300	1,400	4,200	3,220	350	80.00
169	6	1 1½	3 3½	4,000	12,000	36,000	27,600	2,000	6,000	4,600	460	100.00

Capacities are for low pressure steam.

At high pressure, capacity of trap increases.

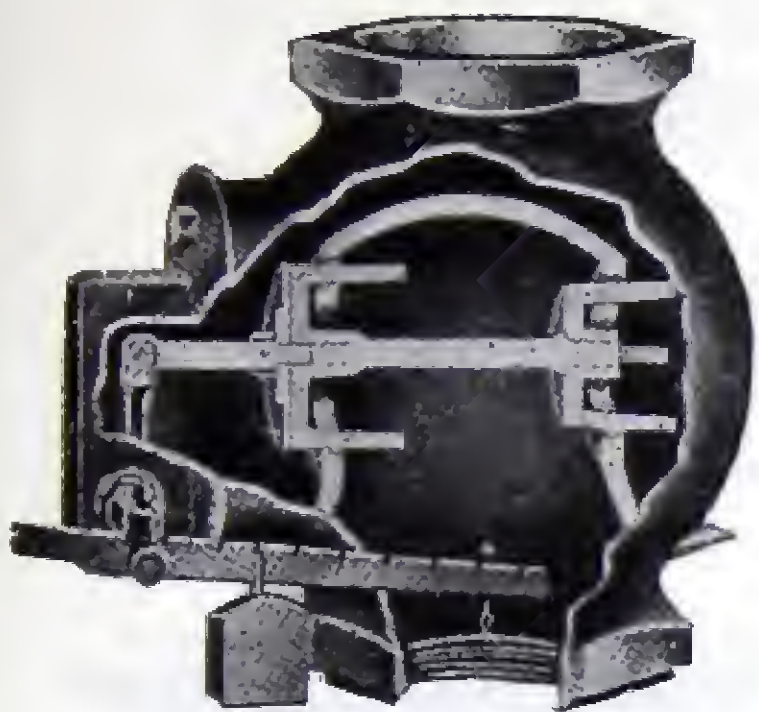
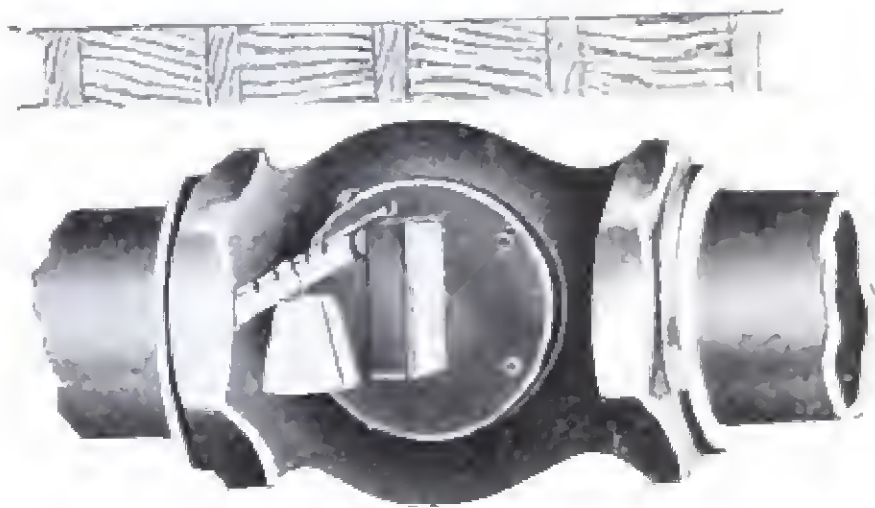


Fig. 597. Screwed Vertical



Fig. 598. Flanged Horizontal

This Valve is designed for use in connection with Non-Condensing Engines, Vacuum or Direct Systems of Steam Heating. It must not be used with Condensing Engines.



The valve may be placed in any position as shown by the accompanying illustrations, but we recommend that wherever possible the valve be used in a horizontal position with the cover on top. The cover can be shifted to any position desired.

When this valve is to be used on heating systems supplied with steam at or below atmospheric pressure (vacuum systems) the discs may be level-seated and ground, when so ordered, and the valve provided with a counter-balance lever to permit of closer adjustment.

Sizes 2 to 12 inches have either Screwed or Flanged ends. Size 14-inch and larger have Flanged ends only.

Flanges will be drilled to Template without extra charge.

Size.....Inches	2	2½	3	3½	4	4½	5	6	7	8
Fig. 597—Screwed.....Each	14.00	16.00	18.00	22.00	25.00	30.00	40.00	60.00	80.00	100.00
Fig. 598—Flanged.....Each	14.00	16.00	18.00	22.00	25.00	30.00	40.00	60.00	80.00	100.00
Diameter of Flanges.....Inches	6	7	7½	8½	9	9¼	10	11	12½	13½

Size.....Inches	9	10	12	14	15	16	18	20	22	24
Fig. 597—Screwed...Each	120.00	145.00	220.00							
Fig. 598—Flanged...Each	120.00	145.00	220.00	345.00	400.00	465.00	600.00	750.00	900.00	1050.00
Diameter of Flanges..Ins.	15	16	19	21	22¼	23½	25	27½	29½	32

BACK PRESSURE VALVES

"CLASS B" IRON BODY—BRASS MOUNTED

For Condensing and Non-Condensing Plants

Horizontal

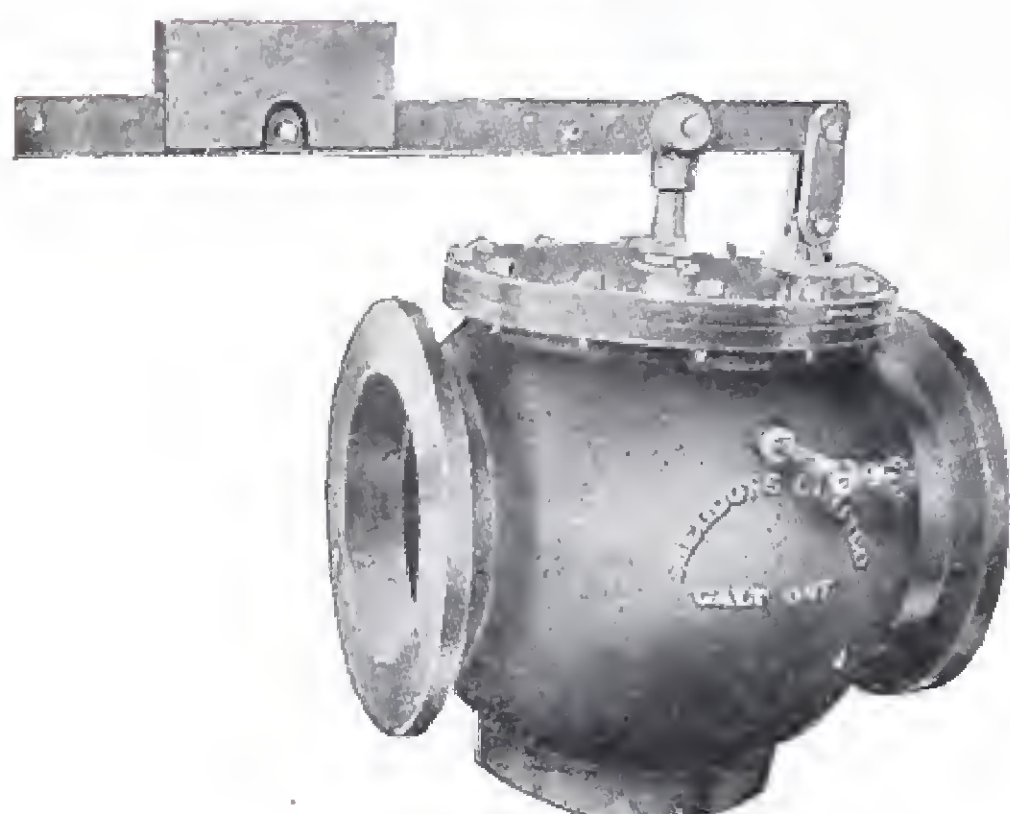


Fig. 599

Vertical



Fig. 600

The Class B Valve can be used for a non-condensing plant, or, by closing the controlling valve, it can be converted into a single seated valve for a condensing plant, the lower valve then acting as a dash pot. For condensing plants, these valves are usually installed in a branch leading from the main exhaust pipe.

All Class B Valves have full pipe opening and allow the steam to exhaust through them freely. They are made in both vertical and horizontal patterns, both styles being furnished with dash pots. The dash pots allow the valves to open and close noiselessly and prevent the discs from hammering and injuring the seats. The valve seats are made from a bronze ring and the discs are faced with a special babbitt metal, which construction enables them to hold tight under high vacuums and not to adhere to each other when pressure comes on the valve. Provision is made in both vertical and horizontal valves for permanently holding them wide open when necessary.

All sizes have standard flanged ends only. All valve flanges will be drilled to template without extra charge.

Size.....Inches	4	5	6	7	8	9	10
Fig. 599—Horizontal.....Each	64.00	90.00	100.00	150.00	170.00	270.00	270.00
Fig. 600—Vertical.....Each	64.00	90.00	100.00	150.00	170.00	270.00	270.00

Size.....Inches	12	14	16	18	20	22	24
Fig. 599—Horizontal.....Each	335.00	415.00	500.00	584.00	670.00	917.00	1170.00
Fig. 600—Vertical.....Each	335.00	415.00	500.00	584.00	670.00	917.00	1170.00

CENTRIFUGAL EXHAUST HEADS

The Exhaust Heads are a necessary addition to any Steam Plant. Oil or moisture is effectively removed from the escaping exhaust steam.

Without the use of an Exhaust Head the moisture and oil will continually fall on roofs and other parts of buildings, causing more or less injury.



Fig. 601

The Base if of heavy Cast Iron. The body or Cone is of heavy gauge galvanized Iron, with all joints watertight.

Sizes from 2 ins. to 10 ins. inclusive are supplied with companion Flanges screwed for wrought pipe unless otherwise ordered.

Sizes over 10-ins. are flanged but Companion Flange is not furnished unless specially ordered, for which an extra charge will be made.

Size.....Inches	2	2½	3	3½	4	4½	5	6	7	8
Fig. 601.....Each	20.00	25.00	30.00	30.00	40.00	40.00	50.00	60.00	75.00	90.00
Size.....Inches	10	12	14	16	18	20	22	24	30	36
Fig. 601.....Each	125.00	150.00	200.00	250.00	300.00	360.00	450.00	600.00	900.00	1200.00

Sizes under 2 inches take same list price as 2-inch.

CAST IRON EXHAUST HEADS

The Cast Iron Exhaust Head is comparatively light in weight, small in size, and will last a lifetime. Its operation is the same as the Centrifugal Head. After being separated from the steam, the water and oil trickle down the sides of the chamber and are carried off through the drip pipe.



Fig. 602

Made of Cast Iron throughout. Sizes up to and including 2 ins. are furnished with screwed connection. All other sizes are flanged, and up to 16 ins. are furnished with Companion Flanges without extra charge.

Size.....Inches	2	2½	3	3½	4	4½	5	6	7	8
Fig. 602.....Each	25.00	25.00	30.00	35.00	40.00	45.00	50.00	60.00	75.00	90.00
Size.....Inches	10	12	14	16	18	20	22	24	30	36
Fig. 602.....Each	125.00	150.00	200.00	250.00	300.00	360.00	450.00	600.00	900.00	1200.00

Sizes under 2 inches take same list price as 2-inch.

"J. M. T." PRESSURE REDUCING VALVES

IRON BODY—BRASS MOUNTED—STANDARD PATTERN

For Reduced Pressures above 5 Pounds

Maximum Working Pressure 300 Pounds

GOVERNMENT APPROVED



Fig. 603

Size	Inches	2½	3	3½	4	5	6
Fig. 603	Each	76.00	96.00	113.00	133.00	180.00	240.00
Centre to Top	Inches	12	14	14	15	15¾	16½
Centre to Bottom	Inches	9½	10½	11½	13½	13½	16
Face to Face of Flanges	Inches	8¼	10¼	12	14	15¼	17¼
Diameter of Flanges	Inches	7½	8¼	9	10	11	12½

Always specify initial or boiler pressure, and required reduced pressure.

“J.M.T.” PRESSURE REDUCING VALVES

STANDARD PATTERN

BRASS

For Reduced Pressures Above 5 Pounds

With Union Connection

Flanged



Fig. 604

Maximum
Working
Pressure
300 Pounds

GOVERNMENT
APPROVED



Fig. 605

Size.....Inches	1/2	3/4	1	1 1/4	1 1/2	2
Figs. 604 and 605.....Each	25.20	25.20	30.80	39.20	49.00	61.60
Centre to Top.....Inches	6	6	8	9	9	10
Centre to Bottom.....Inches	4 3/4	4 3/4	5	6	7 1/2	9 1/8
Length over Unions.....Inches	5 3/4	5 3/4	7	8	9	11 1/4
Diameter of Flanges.....Inches	3 1/2	4	4 1/2	5	6	6 1/2

Always specify initial or Boiler pressure and required reduced pressure.



Fig. 606

Where Pressure Reducing Valves are required with adjustment provided with a loose Key and Shield Protector, we can supply them constructed similar to illustration shown herewith.

Dimensions same as Standard Pattern.

Sizes and prices (Screwed or Flanged) as listed above.

PRESSURE REDUCING VALVES

VACUUM PRESSURE

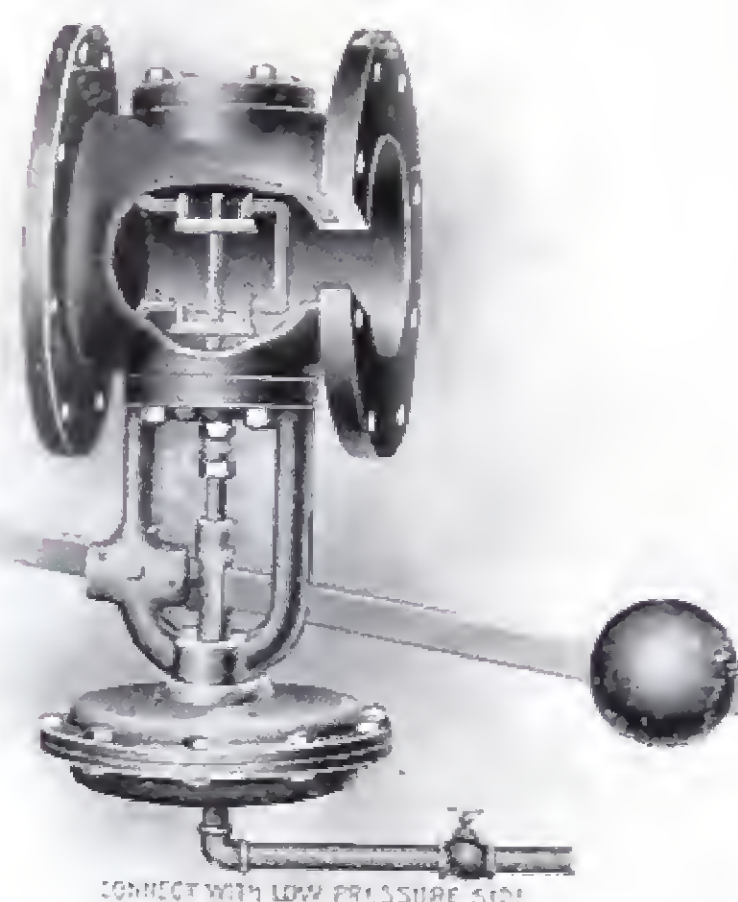


Fig. 167

HIGH PRESSURE



Fig. 168

Fig. 167. SPECIAL VACUUM PRESSURE REGULATING VALVE

Size.....Inches	1 x 2	1 1/4 x 2 1/2	1 1/2 x 3	2 x 4	2 1/2 x 5	3 x 6
Face to Face.....Inches	6 3/4	6 3/4	7 1/8	6 1/2	7 3/4	8 3/16
Fig. 167.....Each	33.00	43.00	54.00	72.00	96.00	126.00
Size.....Inches	4 x 6	4 x 8	5 x 10	6 x 12	7 x 14	8 x 16
Face to Face.....Inches	10 1/2	11	13 1/2	15	15 1/2	17 1/2
Fig. 167.....Each	158.00	190.00	242.00	325.00	400.00	500.00

Sizes up to and including 2 x 4 small ends screwed, large ends flanged—All other sizes flanged both ends.

Fig. 168. HIGH PRESSURE REGULATING VALVE

Size.....Inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6
Face to Face.....Inches	4	4	4	4 3/4	7	7	8 1/2	9 1/2	9 1/2	11	13	14
Fig. 168—Without Dash Pot.....Each	20.00	20.00	22.00	24.00	25.00	30.00	35.00	40.00	50.00	60.00	75.00	100.00
Extra for Dash Pot..Ea.	5.00	5.00	5.00	5.00	5.00	6.00	7.00	8.00	8.00	10.00	15.00	20.00

All sizes screwed both ends except 6 inch which is flanged both ends.

Companion Flanges furnished with all flanged valves.

When ordering, state initial pressure and pressure required.

“EVERLASTING” BLOW-OFF VALVES

IRON BODY—SCREWED OR FLANGED



Fig. 158. Screwed

GOVERNMENT
APPROVED

Tested under
three conditions:

- 1—High Pressure
Steam.
- 2—Hydraulic up to
1000 lbs.
- 3—Compressed Air
up to 300 lbs.

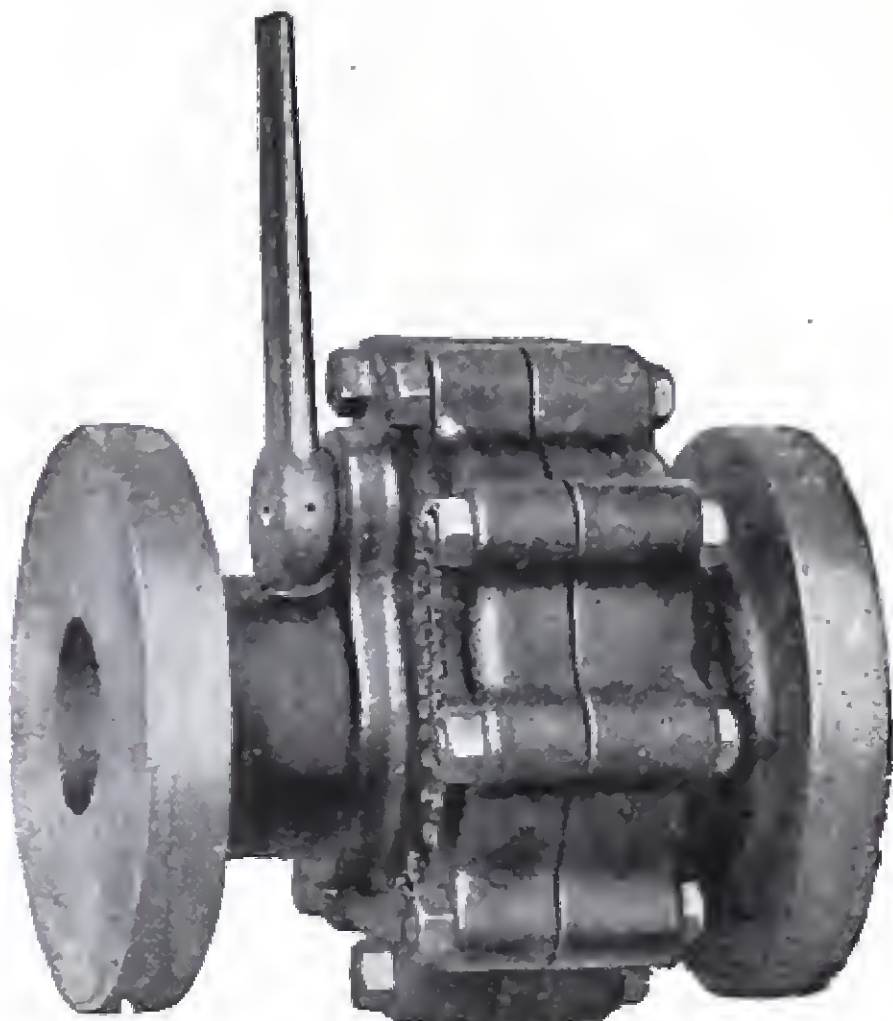


Fig. 159. Flanged

The Everlasting Blow-off Valve has proven so satisfactory that it has been adopted by Engineers wherever a substantial and dependable valve is required.

Once installed the Everlasting Valve requires no attention; it is self-grinding and self-compensating at all points. It is absolutely non-clogging and is so constructed that a clean seat is assured.

The two bonnets are set together upon an approved high pressure gasket with machine bolts, giving quick access to the inside, should it ever be necessary to renew the disc or reface the seat, but years of service show that rarely is there any need of repairing.

The operating post is held to its seat by a stiff bronze spring, thus doing away with a stuffing box, and making it perfectly tight as long as the valve lasts.

To operate—A wrench is placed upon the square head and pushed down, opening the valve, and reversed to close it, the effort to open it being in the 2-inch size about 25 lbs. on an 8-inch lever against 200 lbs. steam pressure (about one-fifth of that necessary to operate most plug cocks).

Size.....Inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	4	6
Fig. 158—Screwed.....Each	11.00	11.00	16.00	22.00	25.00	32.00	44.00	70.00	Quoted on request
Fig. 159—Flanged.....Each		15.00	19.00	26.00	30.00	39.00	50.00	78.00	
Fig. 158A—Screwed *.....Each				28.00	34.50	40.00	54.00	80.00	
Fig. 159A—Flanged †.....Each				32.00	39.00	47.00	60.00	88.00	
Diameter of Flanges.....Inches		$4\frac{1}{2}$	5	6	$6\frac{1}{2}$	$7\frac{1}{2}$	$8\frac{1}{4}$	10	$12\frac{1}{2}$

* With Rack and Pinion, not illustrated.

† With Rack and Pinion, illustrated on following page.

"EVERLASTING" BLOW-OFF VALVES

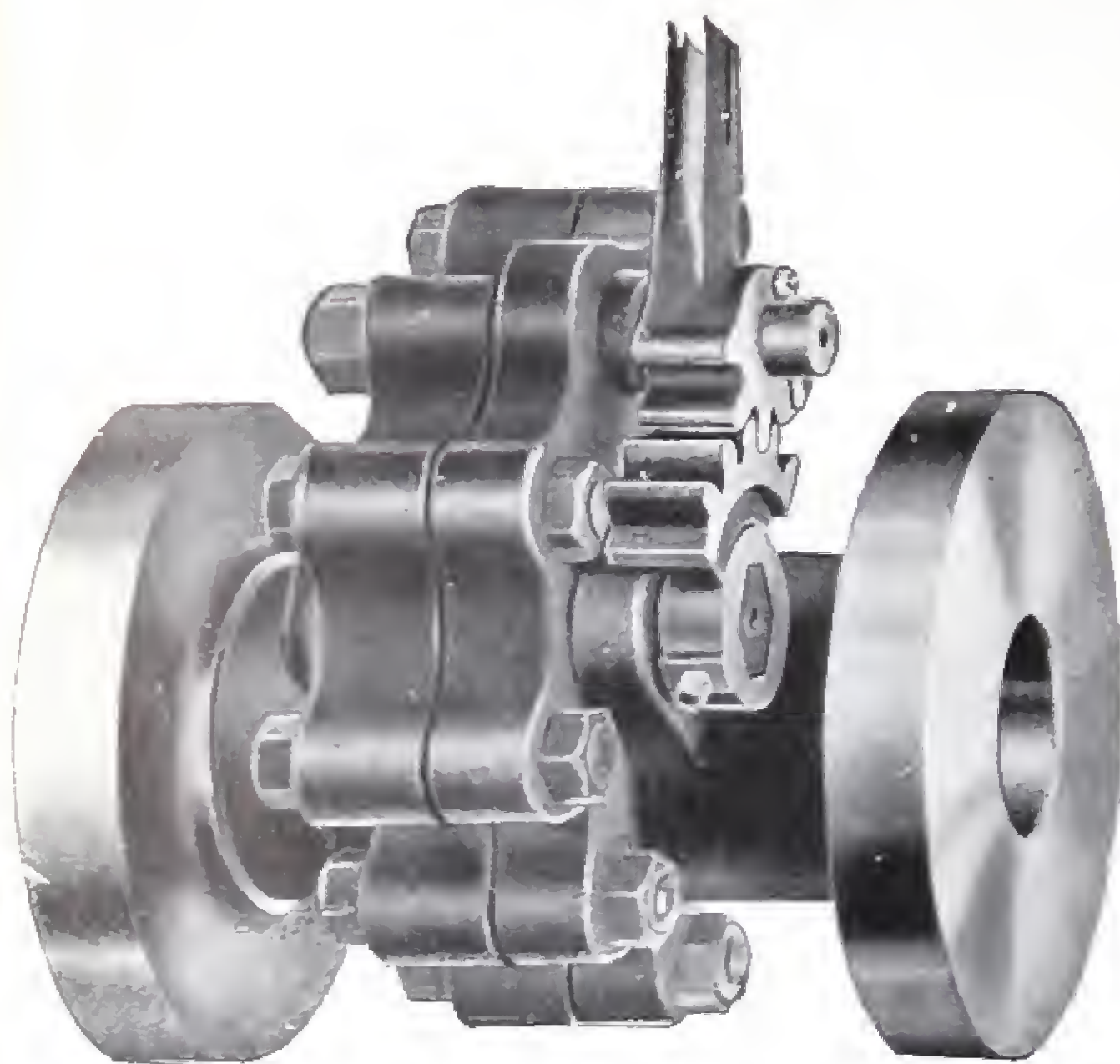


Fig. 644

Iron body flanged with Rack and Pinion. Slow opening type. Listed on page 189.



Fig. 645

Inlet flanged and Outlet threaded on outside. Furnished also with female thread on outlet or male thread on inlet instead of a flange. Prices on application.



Fig. 646

Special type Valve for Locomotive Blow-off service. Prices on application.



Fig. 647

Special type Valve for Locomotive Blow-off service, used in Chili, China and South Africa. Prices on application.

FOOT VALVES
IRON BODY—WITH STRAINER

SCREWED



Fig. 607

FLANGED



Fig. 608

Size.....Inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$
Fig. 607—Screwed, Painted.....Each	1.15	1.30	1.40	1.90	2.40	3.30	3.90	5.60
Fig. 607—Screwed, Galvanized.....Each	1.75	2.00	2.10	2.85	3.60	5.00	5.75	8.50
Fig. 608—Flanged, Painted.....Each					3.50	4.50	5.75	7.50
Fig. 608—Flanged, Galvanized.....Each					5.50	7.00	9.00	12.00
Size.....Inches	4	$4\frac{1}{2}$	5	6	7	8	10	12
Fig. 607—Screwed, Painted.....Each	7.30	10.50	11.25	14.75	35.00	41.00	64.00	100.00
Fig. 607—Screwed, Galvanized.....Each	11.00	15.75	16.75	22.00	53.00	62.00	110.00	155.00
Fig. 608—Flanged, Painted.....Each	9.50	13.00	14.00	17.50	38.00	45.00	70.00	112.00
Fig. 608—Flanged, Galvanized.....Each	15.00	20.00	22.00	27.00	57.00	72.00	120.00	170.00

Q FOOT VALVES
IRON BODY—BRASS SEAT

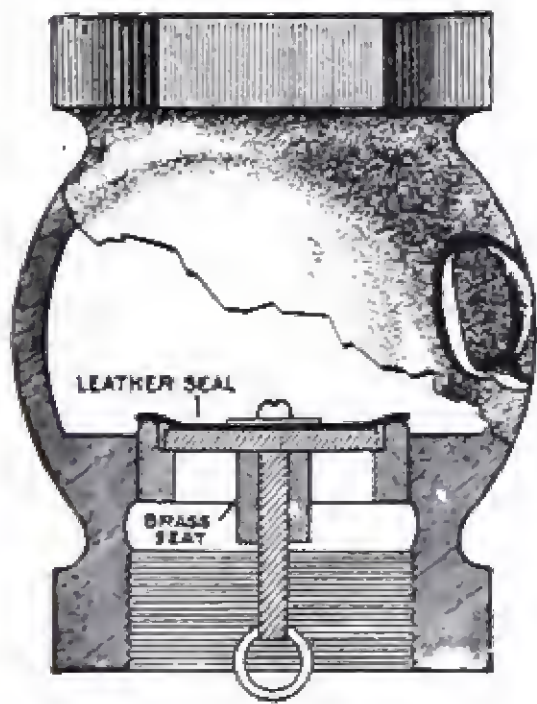


Fig. 609. SCREWED

Size.....Inches	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	4	5	6	8
Fig. 609.....Each	1.25	1.50	1.75	2.00	3.50	6.00	11.50	20.00	25.00	50.00

STANDARD STEAM STOP COCKS

BRASS

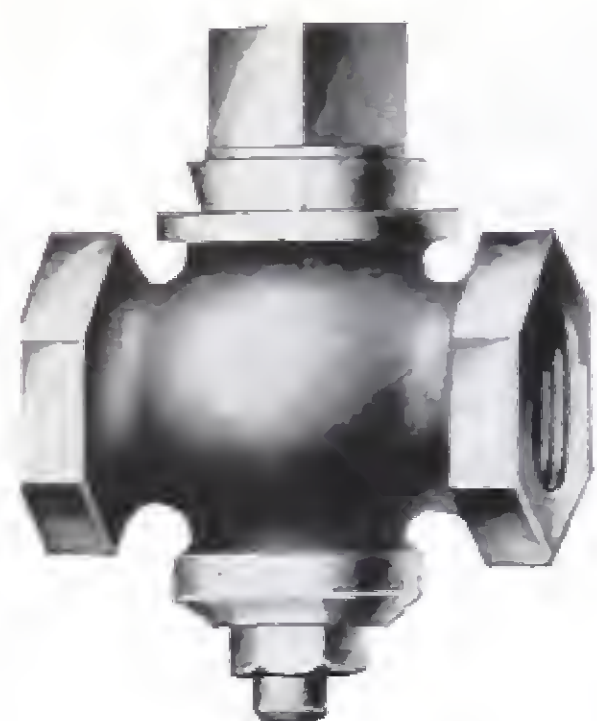


Fig. 610. Screwed



Fig. 611. Flanged

Size	Inches	$\frac{1}{8}$ - $\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Fig. 610.....	Each	.85	1.0	1.25	1.70	2.35	3.70	4.85	7.30	14.50	22.50	38.50	50.00
Fig. 611.....	Each				5.50	7.30	9.70	11.75	18.00	27.50	43.00	62.00	84.00
Diam of Flanges..	Inches				$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	7	$7\frac{1}{2}$	$8\frac{1}{2}$	9

STEAM STOP COCKS

EXTRA HEAVY
BRASS

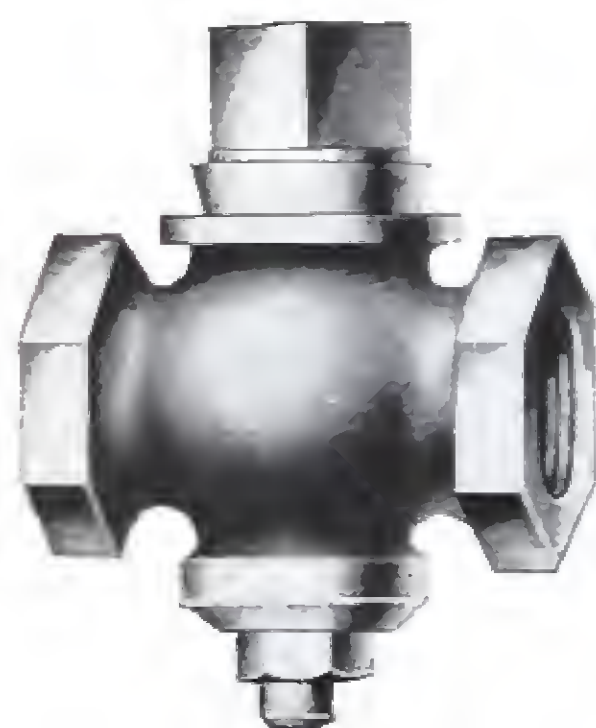


Fig. 612. Screwed



Fig. 613. Flanged

Size.....	Inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	5	6
Fig. 612.....	Each	1.50	2.00	2.85	4.00	6.75	8.50	13.50	25.00	37.00	54.00	75.00	150.00	250.00
Fig. 613.....	Each			7.75	10.00	14.25	17.25	27.00	41.00	63.00	84.00	120.00	190.00	300.00
Diam. of Flanges.	inches.....			4	$4\frac{1}{2}$	5	6	$6\frac{1}{2}$	$7\frac{1}{2}$	$8\frac{1}{4}$	9	10	11	$12\frac{1}{2}$

For Malleable Iron Cock Wrenches, see page 92.

STEAM STOP COCKS

ROUNDWAY
BRASS

Straightway

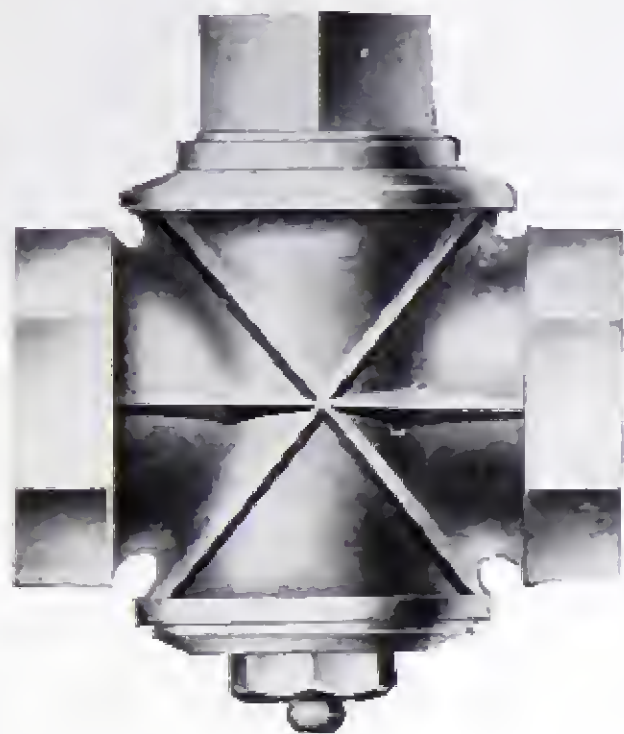


Fig. 614. Screwed
Fig. 615. Flanged

Three-Way

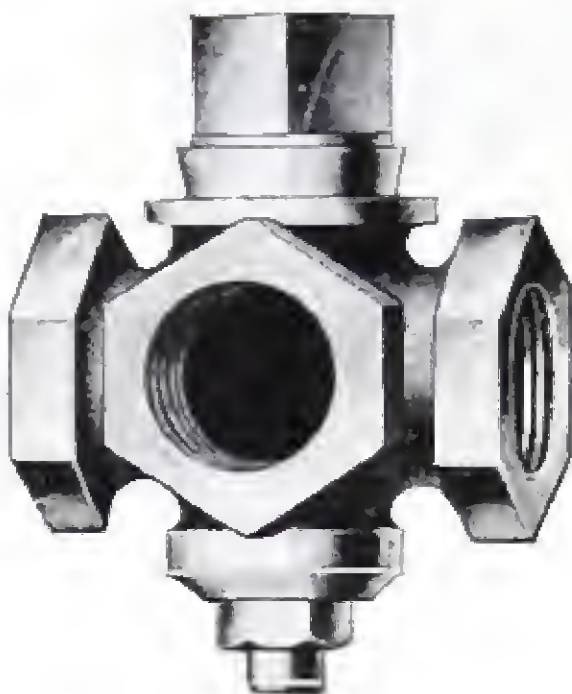


Fig. 616. Screwed

Size.....Inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3
Fig. 614—Screwed.....Each	2.50	3.00	3.75	5.75	7.15	11.00	18.75	26.00
Fig. 615—Flanged.....Each	6.00	6.75	8.50	11.75	13.90	21.70	31.75	50.00
Fig. 616—Screwed.....Each	3.35	4.15	5.45	8.25	10.40	15.00	24.75	37.00
Diameter of Flanges.....Inches	3	3 1/2	4	4 1/2	5	6	7	7 1/2

FOUR-WAY STOP COCKS

BRASS



Fig. 617. Screwed

Size.....Inches	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2
Fig. 617—Screwed.....Each	6.00	6.00	6.00	8.50	11.00	14.50	17.50	25.00

These Stop Cocks can be furnished with Lever Handle at above prices.
For Malleable Iron Cock Wrenches, see page 92.

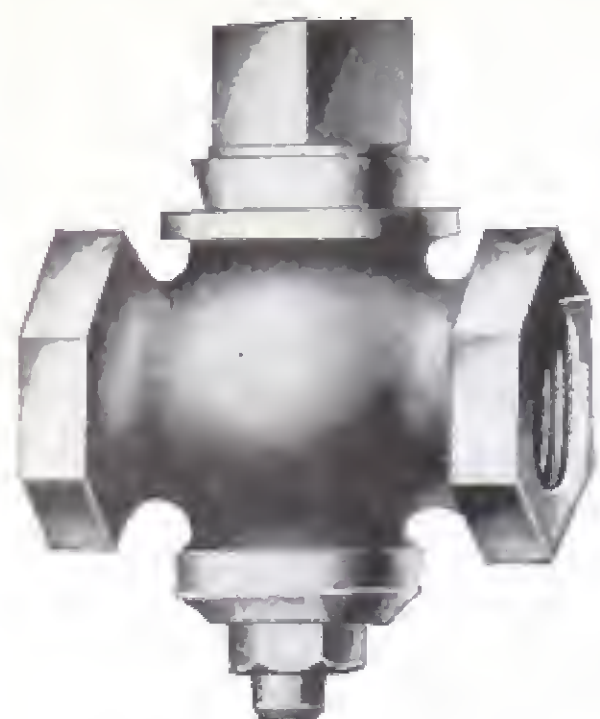


Fig. 618. Screwed

IRON COCKS IRON OR IRON BODY —BRASS MOUNTED



Fig. 619. Flanged

Size	Inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6
Fig. 618—All Iron, Screwed	Each	.90	1.05	1.30	1.60	1.95	2.70	4.40	6.75	12.00	15.50	32.00	45.00
Fig. 618—With Bronze Washer	Each	1.00	1.20	1.55	1.95	2.35	3.20	5.15	7.75	14.00	19.00	38.00	53.00
Fig. 618—With Bronze Plug	Each	1.30	1.60	1.90	2.65	3.75	5.25	8.75	13.00	27.50	36.50	67.00	94.00
Fig. 618—Bronze Plug and Washer	Each	1.40	1.75	2.15	3.00	4.15	5.75	9.50	14.00	29.50	40.00	73.00	102.00
Fig. 619—All Iron, Flanged	Each			2.25	2.75	3.25	4.25	6.25	9.50	15.00	19.00	36.00	50.00
Fig. 619—With Bronze Washer	Each			2.50	3.10	3.65	4.75	7.00	10.50	17.00	22.50	42.00	58.00
Fig. 619—With Bronze Plug	Each			2.85	3.80	5.05	6.80	10.60	15.75	30.50	40.00	71.00	99.00
Fig. 619—Bronze Plug and Washer	Each			3.25	4.10	5.40	7.50	11.25	16.75	32.00	43.50	76.00	108.00

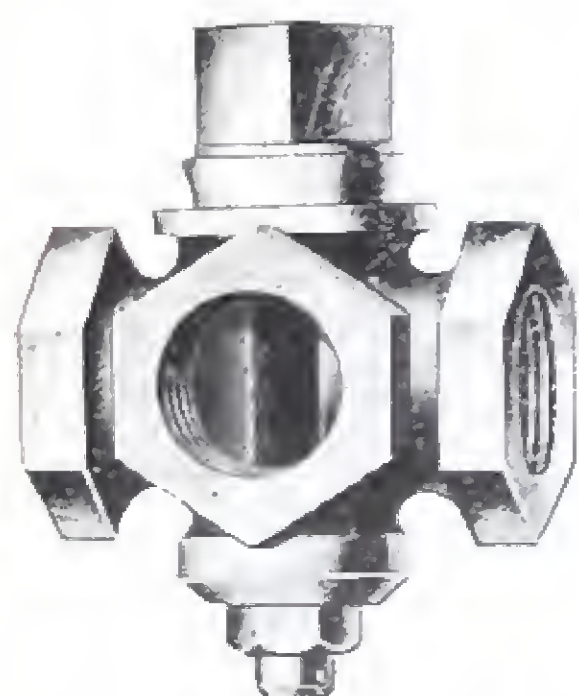


Fig. 620. Screwed

THREE-WAY IRON COCKS IRON OR IRON BODY— BRASS MOUNTED



Fig. 621. Flanged

Size	Inches	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6
Fig. 620—All Iron, Screwed	Each	1.65	1.80	2.05	2.65	3.65	5.35	7.50	14.00	19.00	36.50	52.00
Fig. 620—With Bronze Washer	Each	1.80	2.05	2.40	3.05	4.15	6.10	8.50	16.00	22.50	42.50	60.00
Fig. 620—With Bronze Plug	Each	2.20	2.40	3.10	4.50	6.25	9.75	13.75	30.00	40.00	71.50	100.00
Fig. 620—Bronze Plug and Washer	Each	2.35	2.65	3.45	4.90	6.75	10.50	14.75	32.00	43.50	77.50	108.00
Fig. 621—All Iron, Flanged	Each		3.75	4.25	5.25	7.00	9.00	12.75	20.00	26.00	44.00	60.00
Fig. 621—With Bronze Washer	Each		4.00	4.60	5.65	7.50	9.75	13.75	22.00	29.50	50.00	68.00
Fig. 621—With Bronze Plug	Each		4.35	5.30	7.10	9.60	13.40	19.00	36.00	47.00	79.00	108.00
Fig. 621—Bronze Plug and Washer	Each		4.75	5.60	7.40	10.00	14.00	20.00	38.00	50.50	86.00	116.00
Diameter of Flanges	Inches	4	4 1/2	5	6	7	7 1/2	8 1/2	9	10	11	

For Malleable Iron Cock Wrenches, see page 92.

STOP COCKS

LEVER OR T HANDLE
IRON PIPE

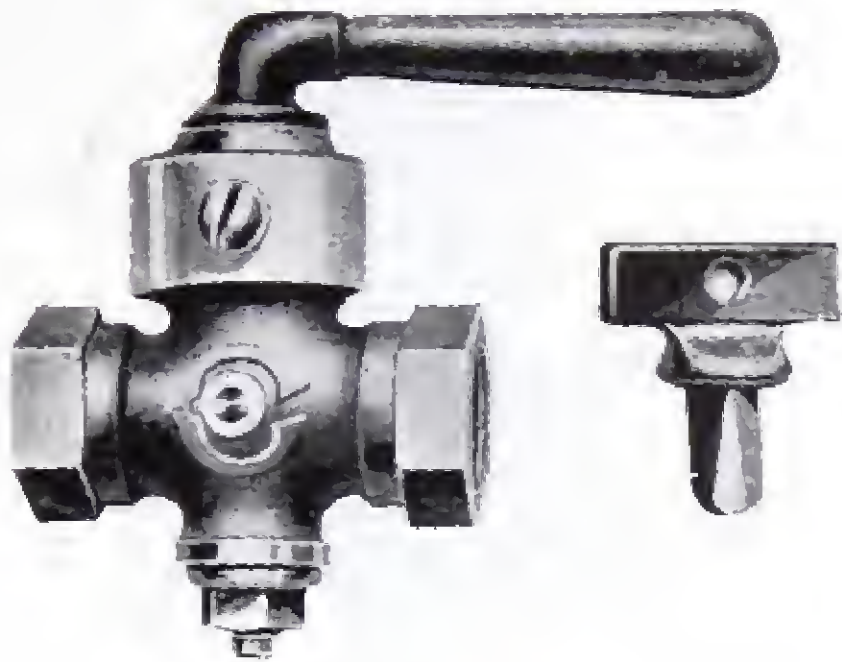


Fig. 622

Size.....Inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Fig. 622—Rough.....Per Dozen	20.40	21.00	29.40	36.00	52.80	89.40	149.40	258.00
Fig. 622—Finished.....Per Dozen	25.20	25.80	35.40	45.00	64.80	107.40	179.40	300.00
Fig. 622—N. P.....Per Dozen	30.00	30.60	41.40	54.00	76.80	125.40	209.40	342.00

STOP AND WASTE COCKS

LEVER OR T HANDLE
IRON PIPE

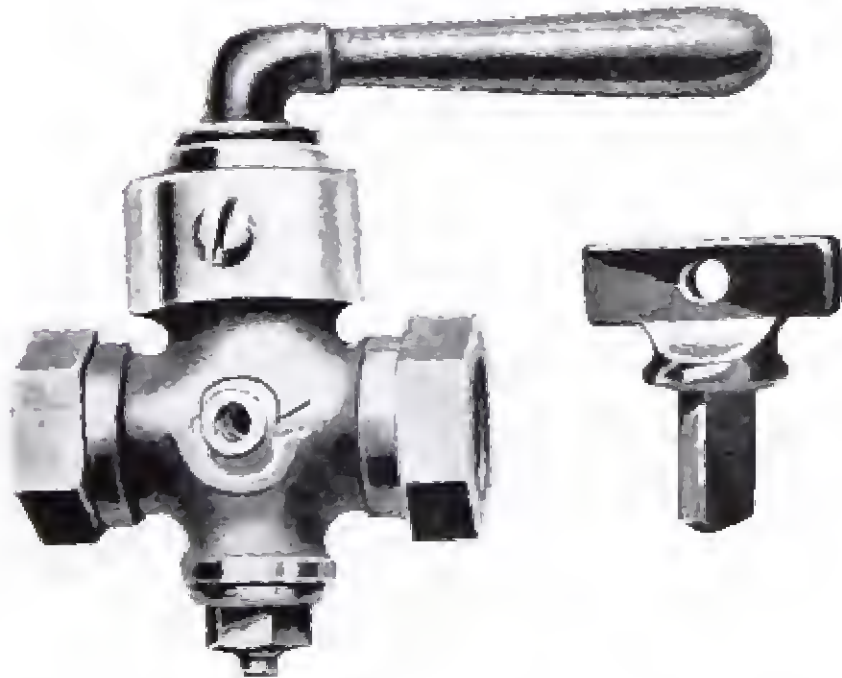


Fig. 623

Size.....Inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Fig. 623—Rough.....Per Dozen	21.00	21.60	30.00	36.60	54.00	91.20	152.40	264.00
Fig. 623—Finished.....Per Dozen	25.80	26.40	36.00	45.60	66.00	109.20	182.40	306.00
Fig. 623—N. P.....Per Dozen	30.60	31.20	42.00	54.60	78.00	127.20	212.40	348.00

STOP AND WASTE COCKS

SOLID T HANDLE
IRON PIPE



Fig. 624

Size Inches	$\frac{1}{2}$	$\frac{3}{8}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Fig. 624 Per Dozen	21.60	30.00	36.60	54.00	91.20	152.40	264.00

GAS HOSE COCKS

FINISHED

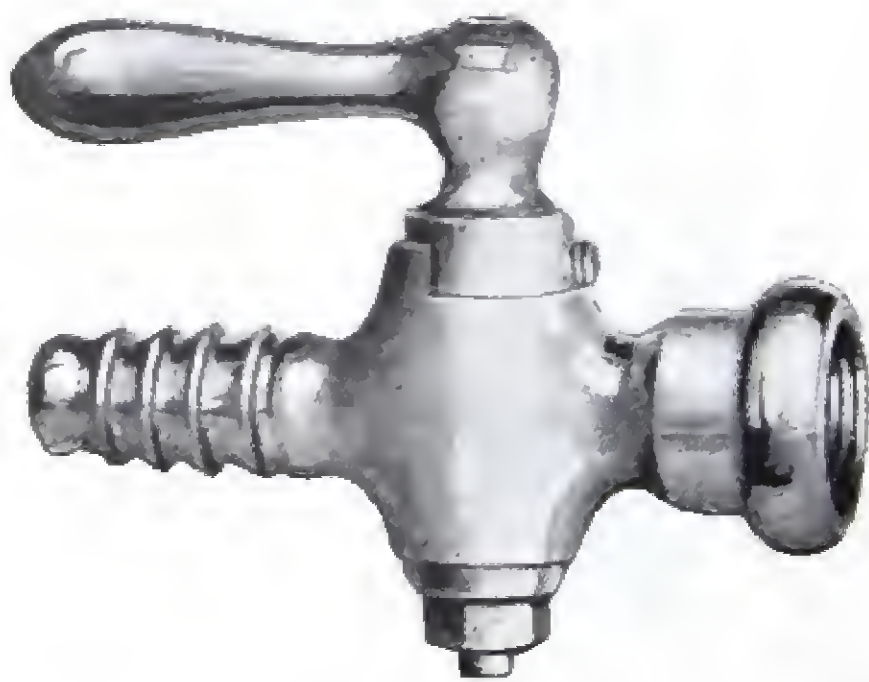


Fig. 625

Size Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$
Fig. 625 Each	1.00	1.05	1.45

COMPRESSION STOPS
IRON PIPE



Fig. 626

Size, Iron Pipe Thread	Inches	$\frac{1}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$1\frac{1}{4}$	1	$1\frac{1}{2}$	$2\frac{1}{2}$	2
Fig. 626—Rough	Per Dozen	13 40	17 40	22 80	30 60	54 10	100 80	139 20	202 10
Fig. 626—Finished	Per Dozen	16 20	19 80	25 20	33 60	60 10	113 10	150 10	210 10
Fig. 626—Nickel Plated	Per Dozen	19 80	23 40	26 80	37 20	66 10	124 20	165 10	230 10

COMPRESSION STOPS

SLIP JOINT

IRON PIPE



Fig. 627

Size	Inches	$\frac{1}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$1\frac{1}{4}$	1	$1\frac{1}{2}$	$2\frac{1}{2}$	2
Finished	Per Dozen					24 60			
Nickel Plated	Per Dozen					28 20			
Extra for Stalling Box	Per Dozen					9 80			

COMPRESSION ANGLE STOPS

IRON PIPE

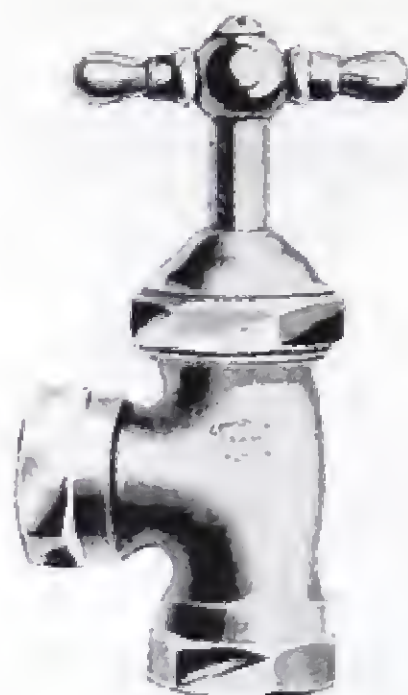


Fig. 628

Size.....Inches	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	1
Fig. 628—Rough.....Per Dozen	17.40	22.80	30.60	54.00
Fig. 628—Finished.....Per Dozen	19.80	25.20	33.00	60.00
Fig. 628—Nickel Plated,Per Dozen	23.40	28.80	37.20	66.00
Extra for Stuffing Box.....Per Dozen	4.80	5.40	6.00	10.00

COMPRESSION STOP AND WASTES

IRON PIPE

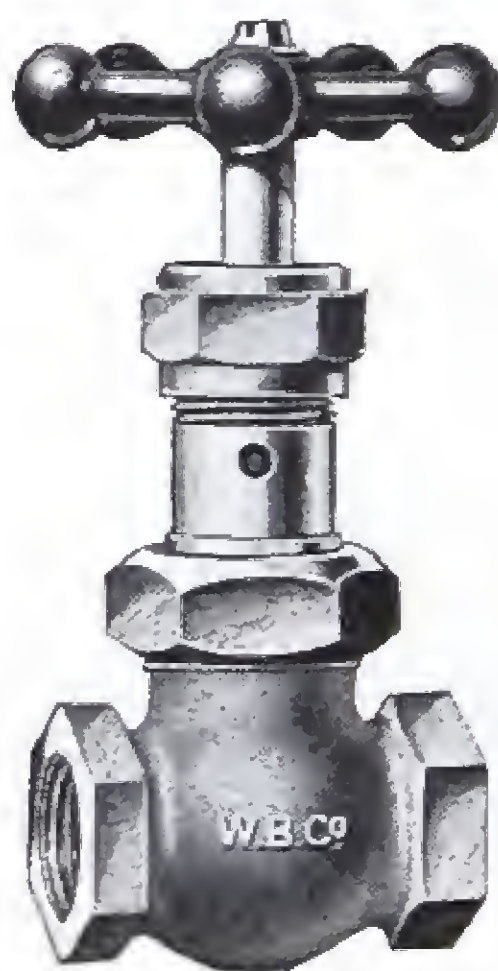


Fig. 629

Size.....Inches	$\frac{1}{2}$	$\frac{3}{4}$
Fig. 629—Rough.....Dozen	32.40	46.80
Fig. 629—Finished.....Dozen	34.80	49.20
Fig. 629—N. P.....Dozen	38.40	53.40

COMPRESSION BIBBS

PLAIN



Fig. 630

HOSE



Fig. 631

Size, Iron Pipe Thread.....Inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Fig. 630—Rough.....Per Dozen	16.80	17.40	22.80	30.60	54.00	106.80	139.20	282.00
Fig. 630—Finished.....Per Dozen	18.60	19.80	25.20	33.00	60.00	114.00	150.00	300.00
Fig. 630—Nickel Plated.....Per Dozen	22.20	23.40	28.80	37.20	66.00	124.80	165.00	330.00
Fig. 631—Rough.....Per Dozen	19.80	20.40	25.80	33.60	61.20	117.60	154.20	304.20
Fig. 631—Finished.....Per Dozen	21.60	22.80	28.20	36.00	67.20	124.80	165.00	322.20
Fig. 631—Nickel Plated.....Per Dozen	25.20	26.40	31.80	40.20	73.20	135.60	180.00	352.20

COMPRESSION DOUBLE BATH COCKS
PORCELAIN INDEX CROSS HANDLES



Fig. 632

With Finished I. P. Male Couplings.....Each	8.20
Without Couplings, with Locknuts.....Each	6.80

COMPRESSION BASIN COCKS

LONG SPOUT

INDEX CROSS HANDLE



Fig. 633

Finished or Nickel Plated.....Per Dozen \$30.00

BATH WASTE AND OVERFLOW



Fig. 634

Size, 1³/₈ inches, List Price.....Each \$2.80

ADJUSTABLE PLAIN BASIN TRAPS

DRAWN

“S”



Fig. 635

“P”



Fig. 636

Fig. 635. “S” TRAP

Size.....Inches	1¼	1½
Fig. 635.....Each	5.25	6.55

Fig. 636. “P” TRAP

Size.....Inches	1¼	1½
Fig. 636.....Each	4.15	5.20

COMPRESSION BOILER DRAIN COCKS

MALE

IRON PIPE



Fig. 637

Size.....Inches	$\frac{1}{2} \times \frac{1}{2}$	$\frac{1}{2} \times \frac{3}{4}$	$\frac{5}{8} \times \frac{3}{4}$
Fig. 637—Rough, Nickel Plated.....Dozen	17.40	19.80	22.80

LEAD FLANGE AND IRON UNION COUPLINGS

ROUGH



Fig. 638

Size.....Inches	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Fig. 638.....Each	.85	1.20	1.50	2.00	3.60	5.00	7.50

CORPORATION STOP COCKS



Fig. 639

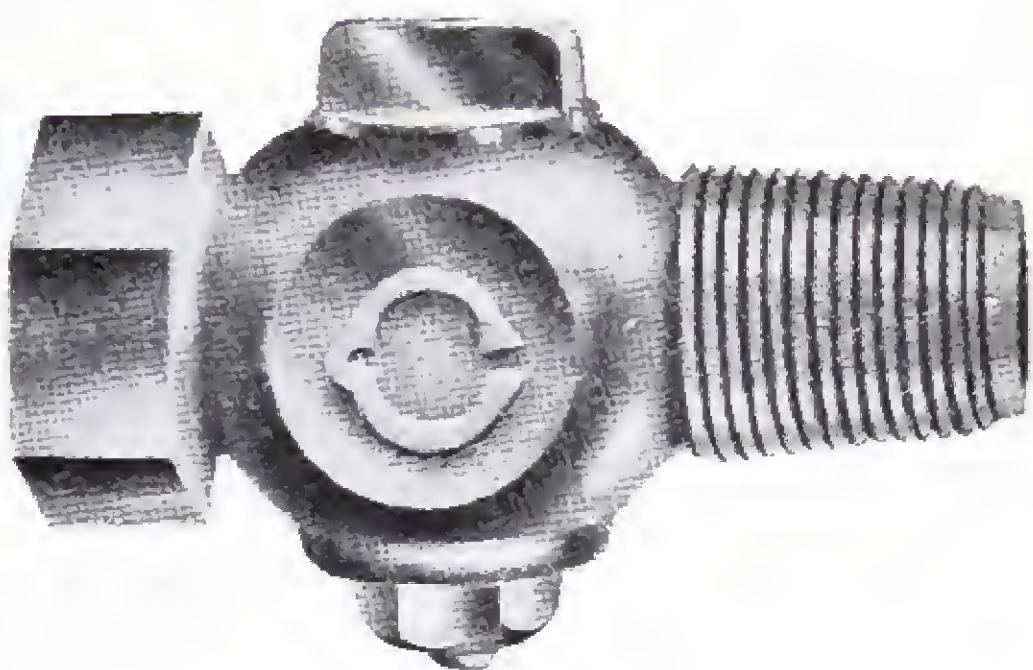


Fig. 640

Fig. 639. Mueller Machine, Screw Plug, Inlet End Mueller, I. P., increasing on Outlet to next size larger than body.

Fig. 640. Inlet End Mueller, Outlet End Female, I. P., same size as body.

Size.....Inches	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Figs. 639 and 640.....Each	1.45	1.95	2.50	4.00	9.25	14.00	22.50

CORPORATION STOP COCKS

LEAD FLANGE, MUELLER MACHINE, SCREW PLUG

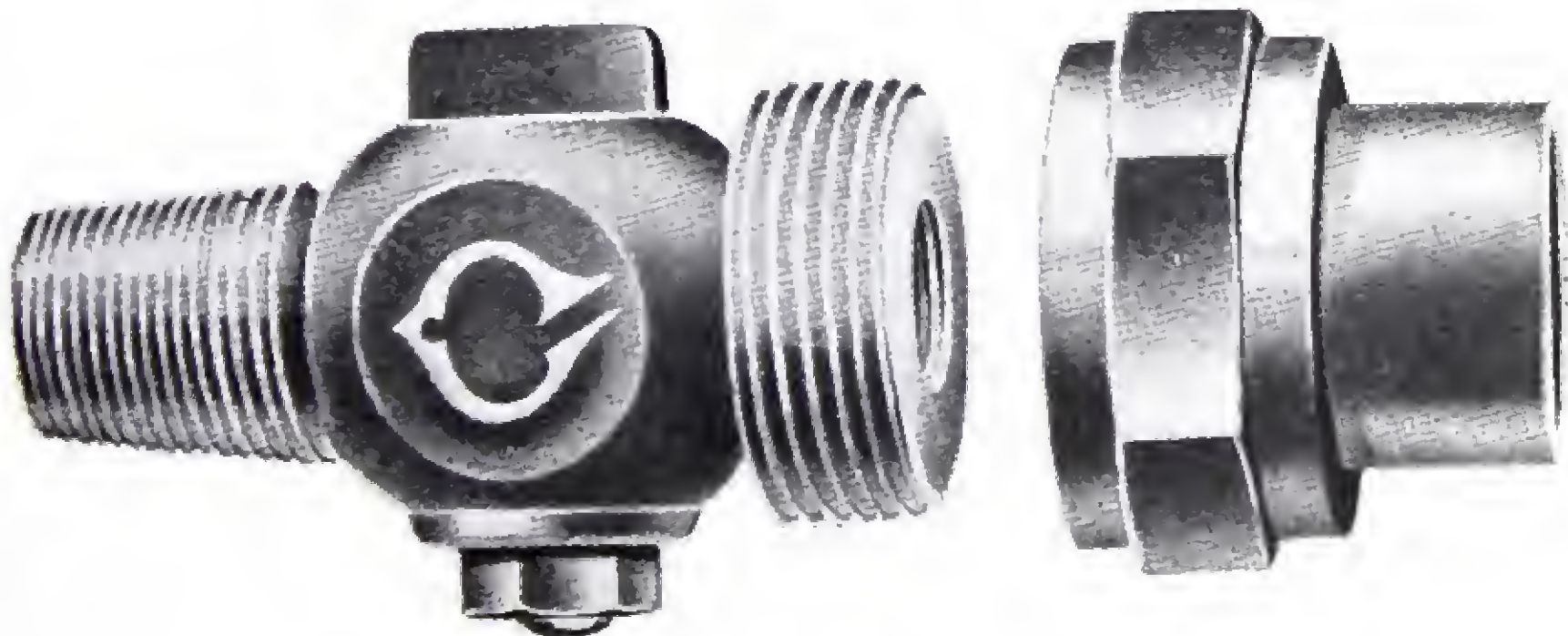


Fig. 641

Size.....Inches	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Fig. 641.....Each	2.15	2.95	3.75	5.70	12.25	18.25	28.85

CORPORATION STOP COCKS

WOOD MAIN, OUTLET END THREADED, I. P.,
SAME SIZE AS BODY



Fig. 642

Size.....Inches	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Fig. 642.....Each	1.75	2.30	2.90	4.50	10.25	16.00	25.50

CURB STOP COCKS

ROUND WAY—SOLID HANDLE
WITH OR WITHOUT CHECK



Fig. 643

Size.....Inches	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Fig. 643.....Each	1.95	2.60	3.30	5.00	8.10	11.75	21.00

WATER COLUMNS

For Steam Pressures
up to 250 Pounds

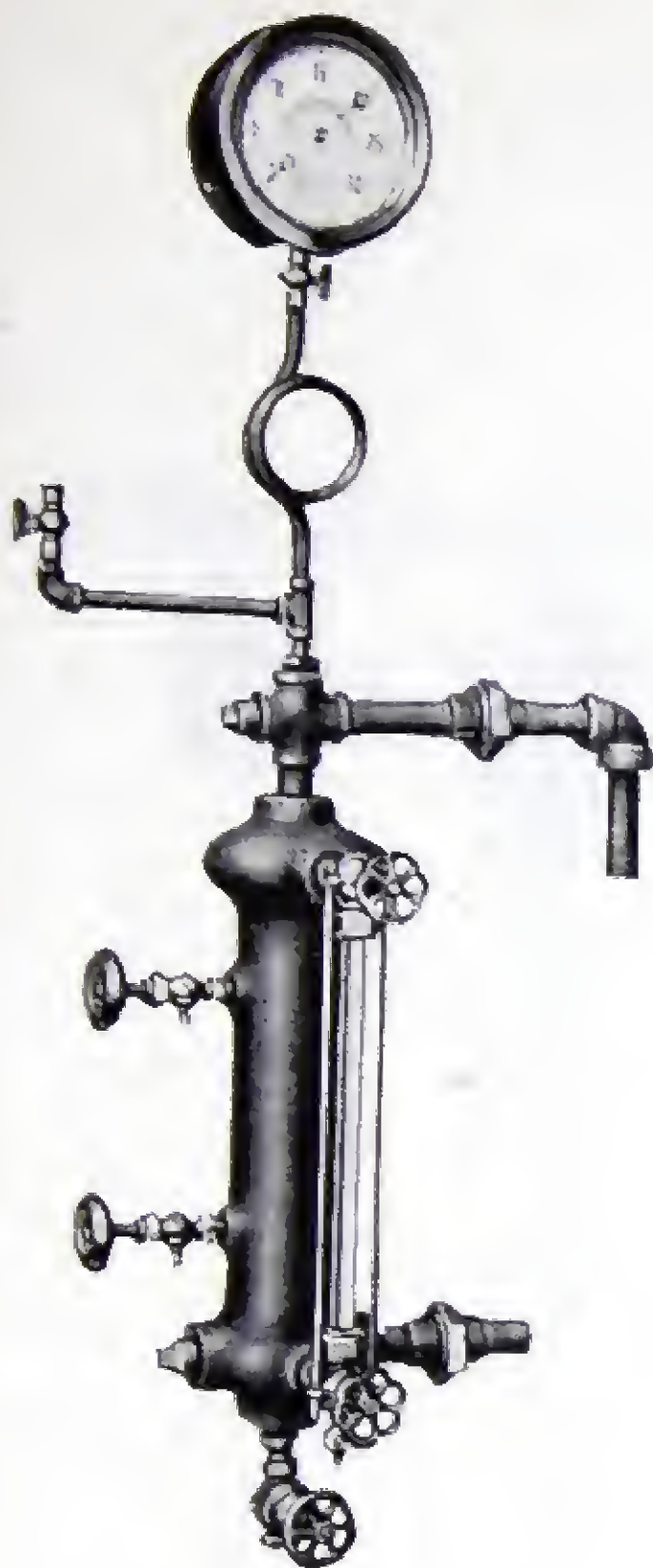


Fig. 654

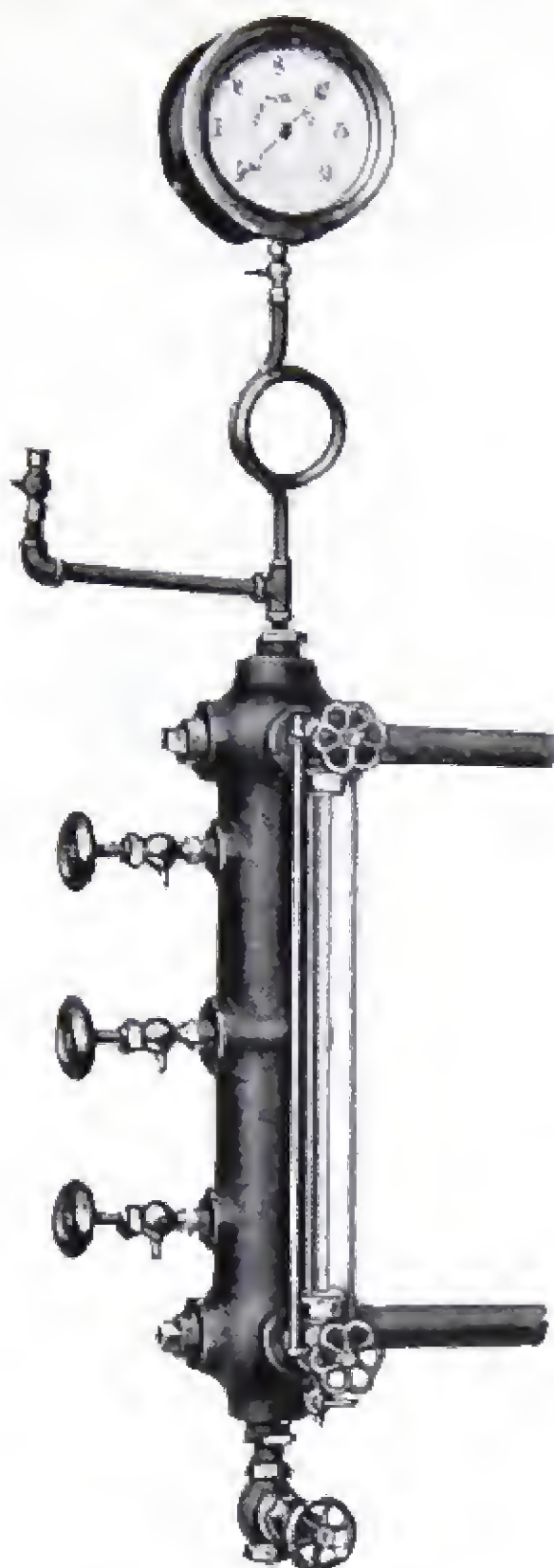


Fig. 655



Fig. 656

Figs. 654 and 655. LOW PRESSURE

Figure Number.....	654	655
Size Number.....	1	2
Size of Boiler and Connections.....	$\frac{3}{4}$	1-1 $\frac{1}{4}$
Size of Water Gauge Connections.....	$\frac{1}{2}$	$\frac{1}{2}$
Size of Gauge Cock Connections.....	$\frac{3}{8}$	$\frac{3}{8}$
Length over all.....	17	20 $\frac{1}{2}$
Centre to Centre Water Gauge Connections.....	13 $\frac{15}{16}$	16
List Price..... Each	4.60	5.60

Fig. 656. HIGH PRESSURE

Figure Number.....	1	2	3	4
Size of Boiler and End Connections.....	$\frac{1}{2}$	$\frac{3}{4}$	1	1 $\frac{1}{4}$
Size of Water Gauge Connections.....	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{3}{4}$
Size of Gauge Cock Connections.....	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$
Length over all.....	13 $\frac{3}{8}$	16 $\frac{3}{4}$	18 $\frac{7}{8}$	23 $\frac{5}{8}$
Centre to Centre of Boiler and Water Gauge Connections.....	10	12 $\frac{1}{2}$	14	18
List Price..... Each	2.75	4.00	6.00	8.00

WATER GAUGES

BRASS

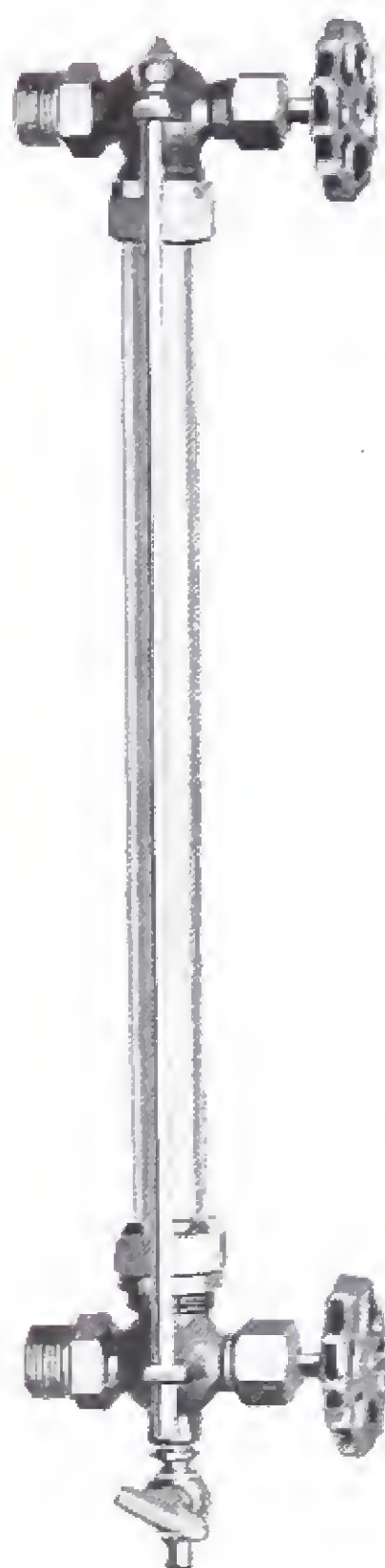


Fig. 658

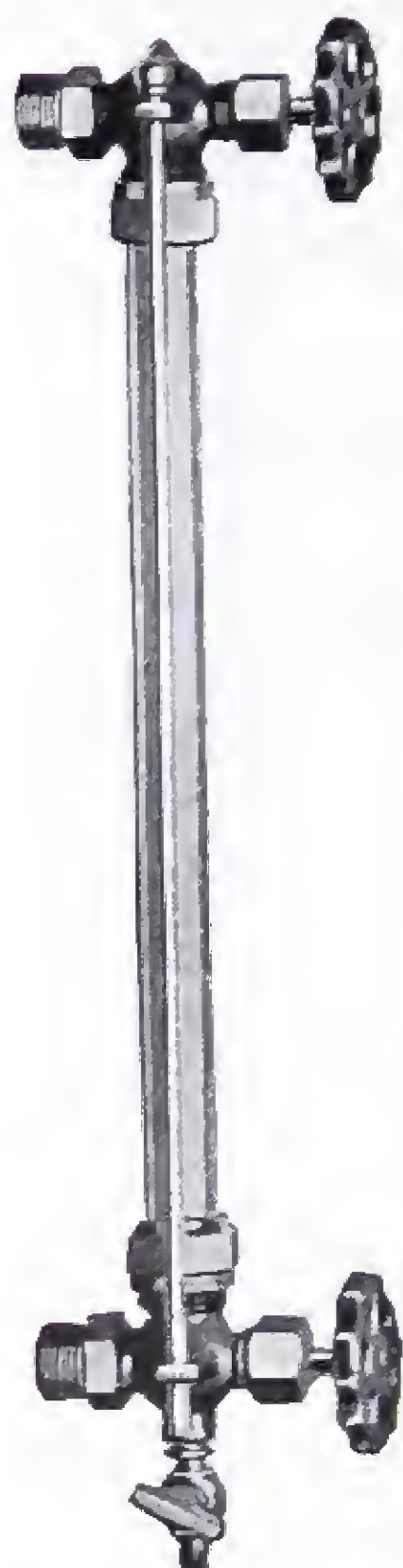


Fig. 659



Fig. 660

Fig.	Number of Guards	Wheels	Pipe Size Inches	Size of Glass Inches	Price, Each		
					Rough	Finished	N. P.
658	2	Iron	$\frac{3}{8}$	$\frac{5}{8} \times 12$	2.75		
659	2	Iron	$\frac{1}{2}$	$\frac{5}{8} \times 12$	2.75		
660	2	Wood	$\frac{1}{2}$	$\frac{5}{8} \times 12$		4.25	4.75

WATER GAUGES

BRASS

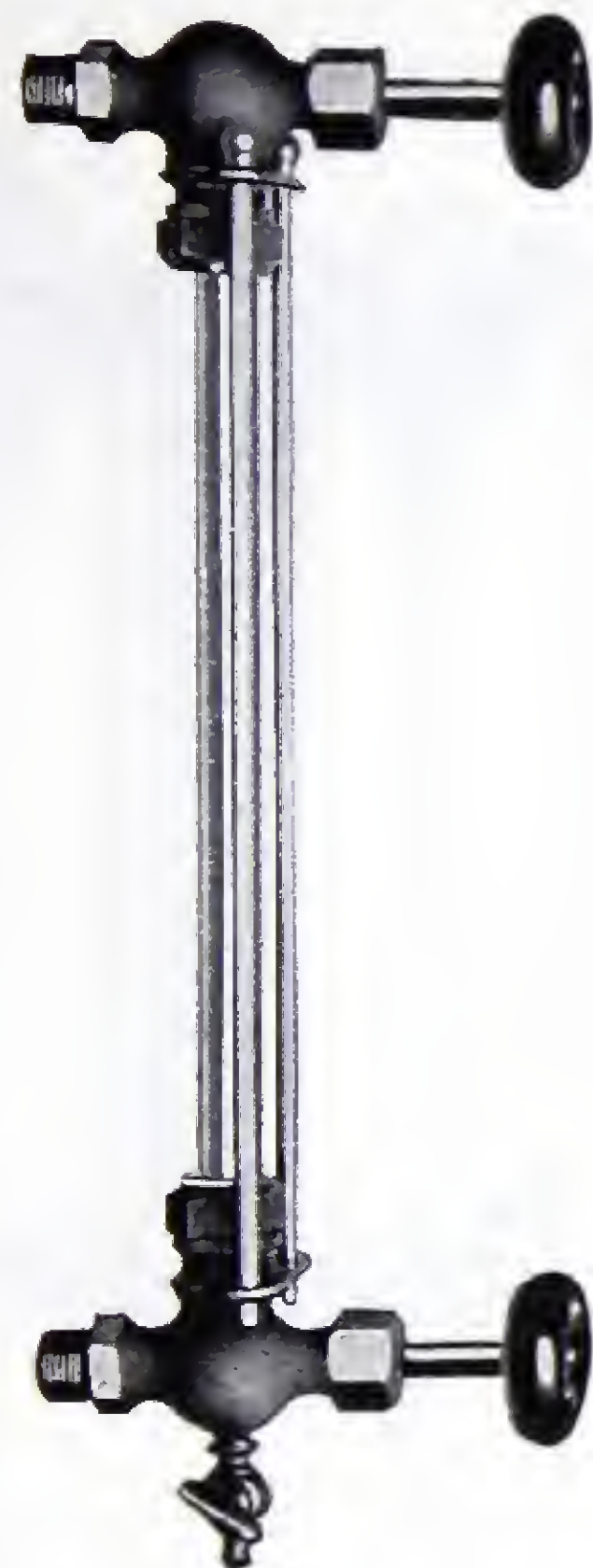


Fig. 661

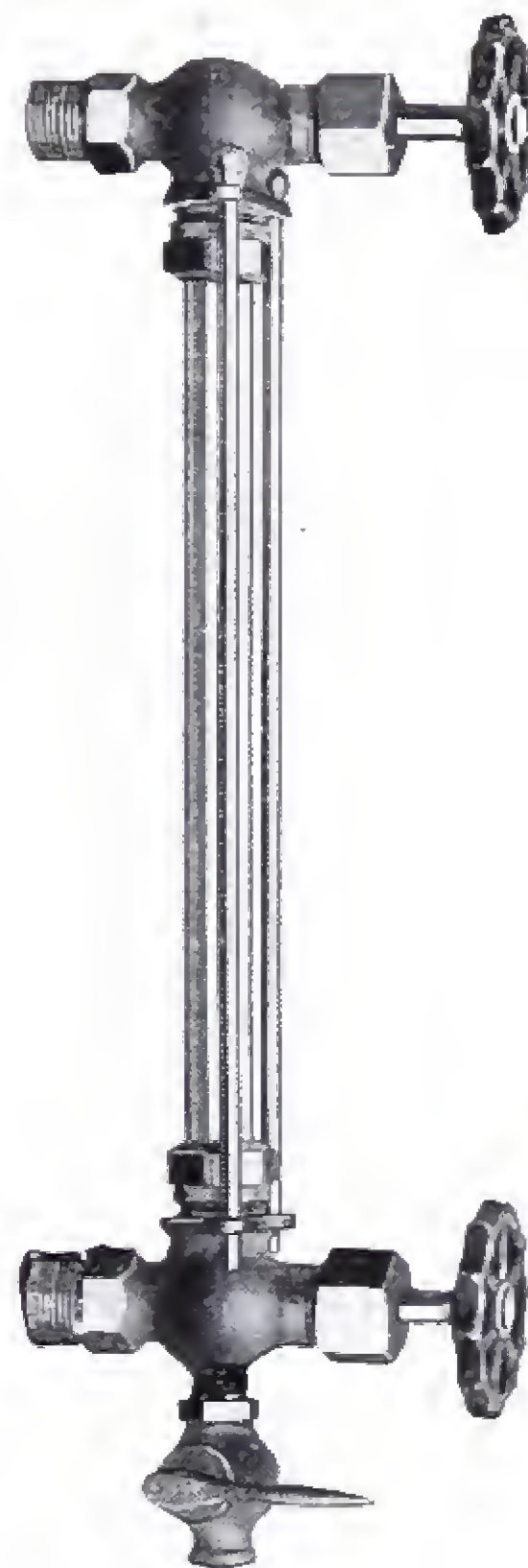


Fig. 662

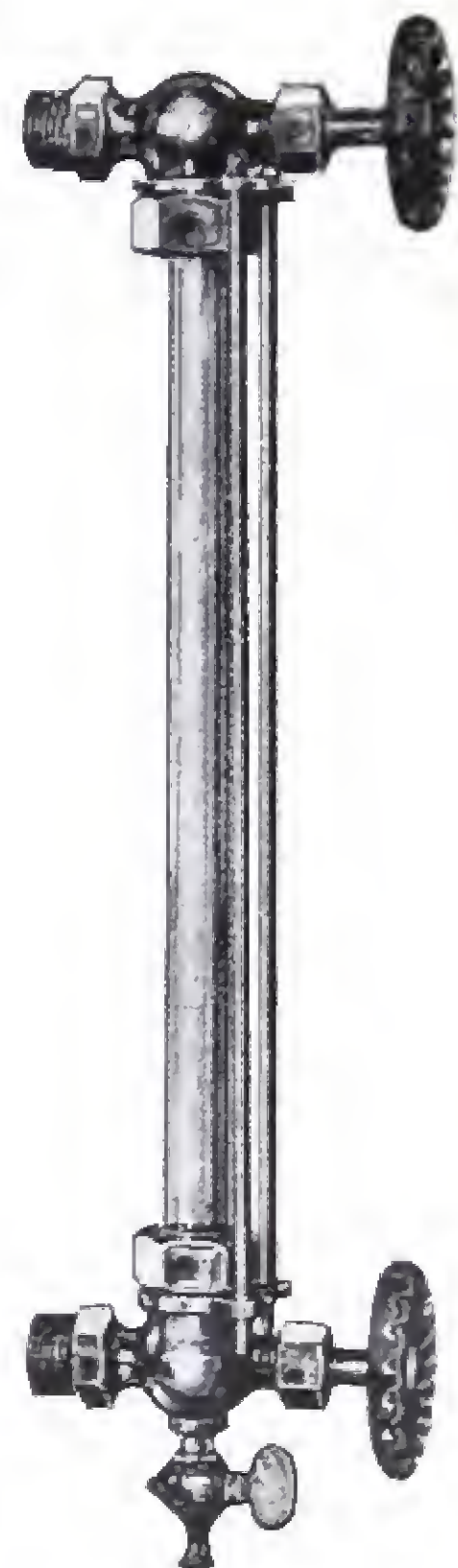


Fig. 663

Working Pressures up
to 175 Pounds

Fig.	Number of Guards	Wheels	Pipe Size Inches	Size of Glass Inches	Price, Each		
					Rough	Finished	N. P.
661	2	Wood	$\frac{1}{2}$ or $\frac{3}{4}$	$\frac{5}{8}$ x 12		7.50	8.50
662	2	Iron	$\frac{3}{4}$	$\frac{3}{4}$ x 12	5.75	7.50	9.25
663	2	Iron	$\frac{1}{2}$	$\frac{5}{8}$ x 12		5.50	
663	2	Iron	$\frac{3}{4}$	$\frac{3}{4}$ x 16		8.00	

EXTRA HEAVY WATER GAUGES

BRASS

IRON WHEELS AND LEVERS

For Steam Working Pressures up to 250 Pounds

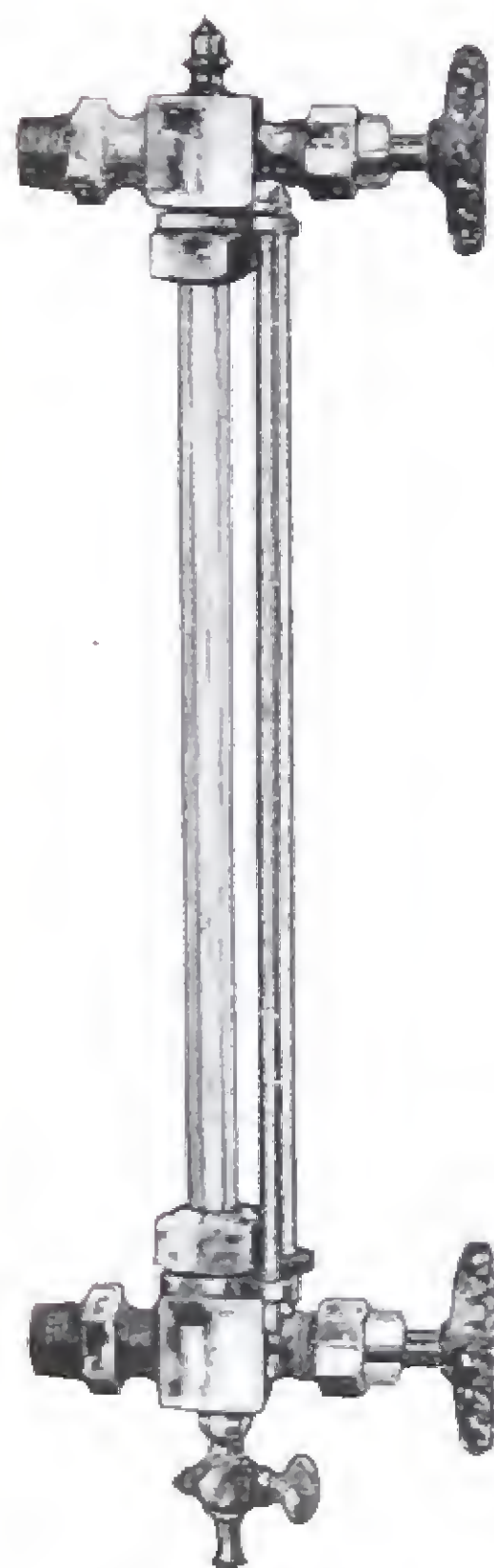


Fig. 664

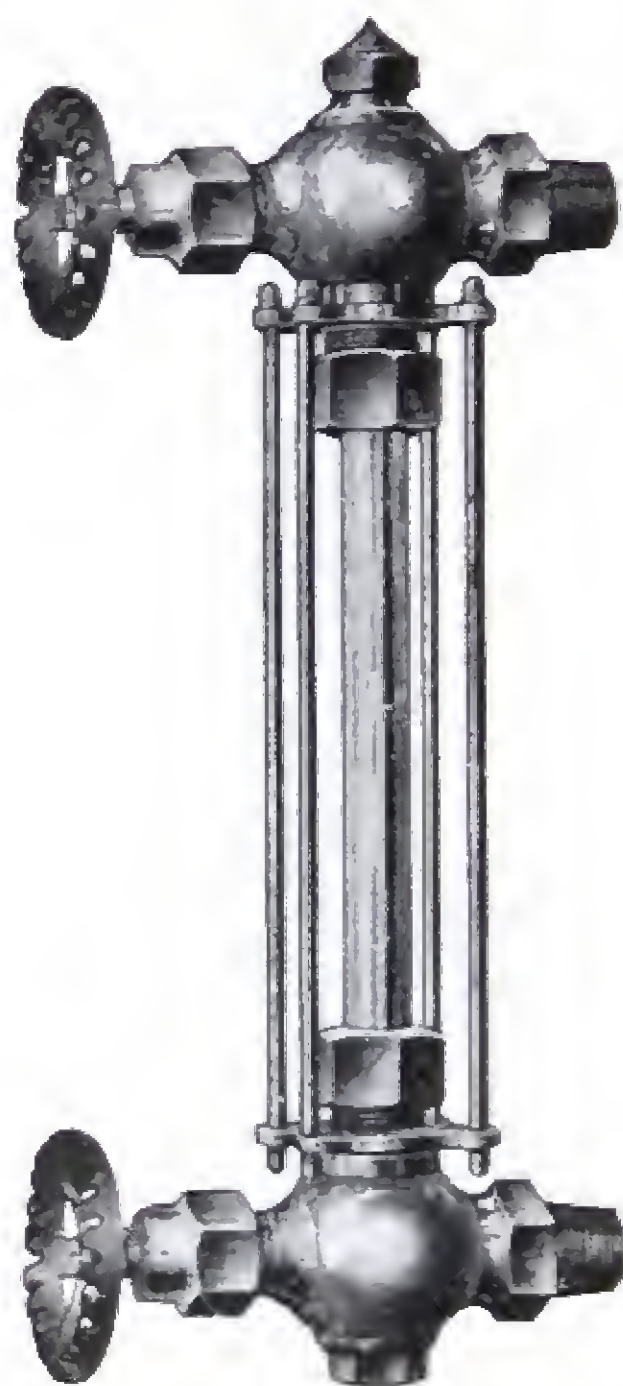


Fig. 665

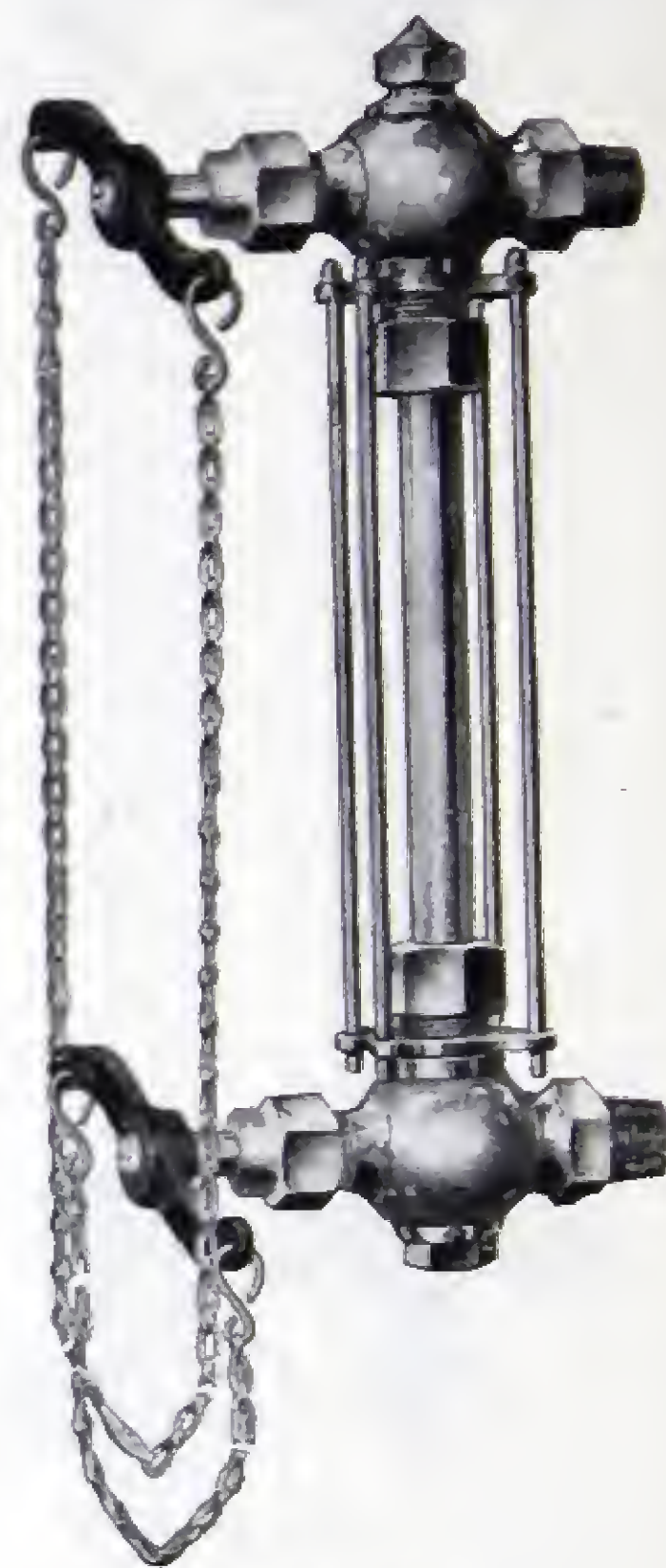


Fig. 666

Size.....Inches	$\frac{1}{2}$	$\frac{3}{4}$
Fig. 664—Finished.....Each		20.00
Fig. 665—Finished.....Each		35.00
Fig. 666—Finished.....Each	6.50	
Size of Glass.....Inches	$\frac{1}{2} \times 12$	$\frac{5}{8} \times 16$
Centre to Centre of Cocks .....Inches	14	$19\frac{1}{4}$

COMPRESSION GAUGE COCKS
BRONZE

IRON WHEEL



Fig. 667

WOOD WHEEL



Fig. 668

IRON WHEEL



Fig. 669

GOVERNMENT APPROVED
Working Pressure 200 Pounds

Description	Rough			Finished			N. P.		
	3/8	1/2	3/4	3/8	1/2	3/4	3/8	1/2	3/4
Screwed Iron Pipe, Size.....Inches									
Fig. 667—Without Stuffing Box....				.95	1.00	1.25	1.15	1.20	1.50
Fig. 668—Wood Wheel.....					1.60	1.80		1.90	2.15
Fig. 669—Iron Wheel.....			1.60			1.80			2.20

TAYLOR-FORBES PRESSURE GAUGES

LOW PRESSURE
SINGLE SPRING



Fig. 672 Turned in Ring

GOVERNMENT
APPROVED

HIGH PRESSURE
SINGLE SPRING



Fig. 670

Diameter of Dial.....Inches	2	2½	3	3½	4½	5	5½	6	6¾	8½	10	12	16
Fig. 670—Iron Case Brass Ring.....Each	6.00	6.00	6.00	7.00	8.00	8.00	10.00	13.00	16.00	22.00	32.00	50.00	90.00
Fig. 670—Iron Case N. P. Ring.....Each	6.15	6.15	6.15	7.18	8.20	8.20	10.25	13.50	16.60	22.75	33.00	51.30	92.00
Fig. 672—Iron Case Brass Ring.....Each	6.00	6.00	6.00	7.00	8.00	8.00							
Fig. 672—Iron Case N. P. Ring.....Each	6.15	6.15	6.15	7.18	8.20	8.20							

HIGH PRESSURE
AUXILIARY SPRING



Fig. 674

GOVERNMENT
APPROVED

HIGH PRESSURE
DOUBLE SPRING



Fig. 676

Diameter of Dial.....Inches	3½	4½	5	5½	6	6¾	8½	10	12	16
Fig. 674—Iron Case Brass Ring.....Each	10.00	10.00	11.00	12.00	15.00	18.00	25.00	37.00	55.00	105.00
Fig. 674—Iron Case N. P. Ring.....Each	10.20	10.20	11.20	12.25	15.50	18.60	25.75	38.00	56.50	107.00
Fig. 676—Iron Case Brass Ring.....Each		10.00	11.00	12.00	15.00	18.00	25.00	37.00	55.00	105.00
Fig. 676—Iron Case N. P. Ring.....Each		10.20	11.20	12.25	15.50	18.60	25.75	38.00	56.50	107.00

TAYLOR-FORBES GAUGES

ALTITUDE GAUGE



Fig. 678

ALTITUDE GAUGE



Fig. 682. Turned in Ring

Diameter of Dial.....Inches	3 1/2	4 1/2	5	5 1/2	6	6 3/4	8 1/2	10	12
Fig. 678—Iron Case, Brass Ring.....Each	10.00	12.00	12.00	11.00	16.00	20.00	30.00	10.00	60.00
Fig. 678—Iron Case, N. P. Ring.....Each	10.18	12.20	12.20	11.25	16.50	20.60	30.75	41.00	61.50
Fig. 682—Iron Case, Brass Ring.....Each	10.00	12.00	12.00						
Fig. 682—Iron Case, N. P. Ring.....Each	10.18	12.20	12.20						

COMBINATION
ALTITUDE GAUGE AND
THERMOMETER

COMBINATION
PRESSURE AND ALTITUDE
GAUGE

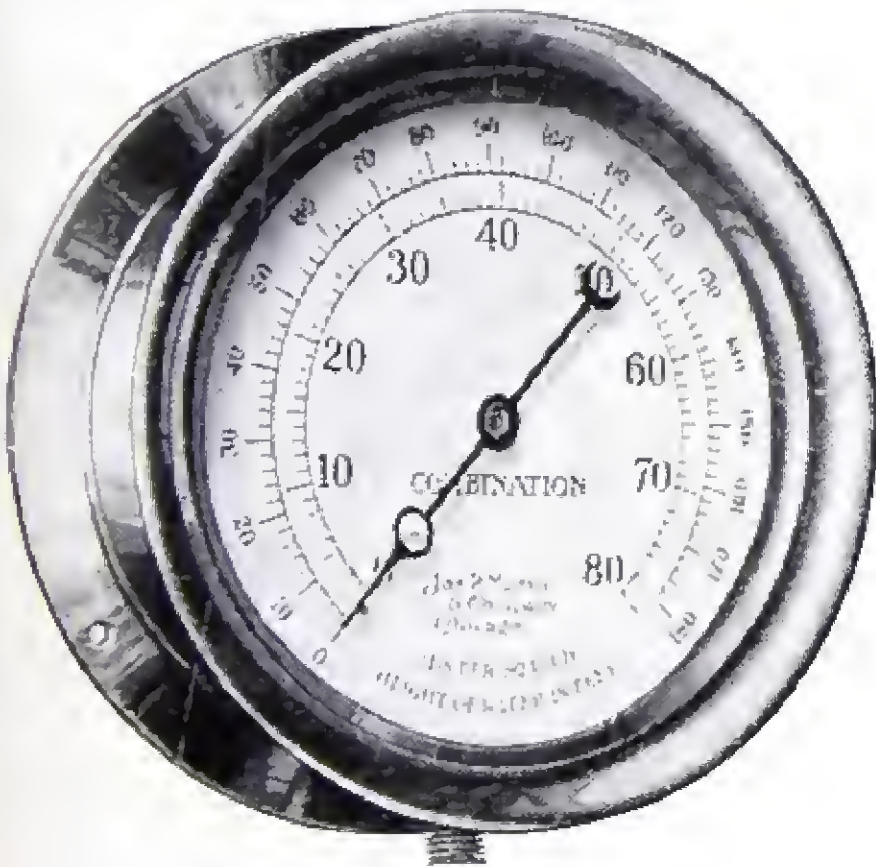


Fig. 680



Fig. 691

Diameter of Dial.....Inches	3 1/2	4 1/2	5	5 1/2	6	6 3/4	8 1/2	10	12
Fig. 680—Iron Case, Brass Ring.....Each	10.00	12.00	12.00	14.00	16.00	20.00	30.00	10.00	60.00
Fig. 680—Iron Case, N. P. Ring.....Each	10.18	12.20	12.20	14.25	16.50	20.60	30.75	41.00	61.50
Fig. 691—White Enamel Finish.....Each									

Prices on Application

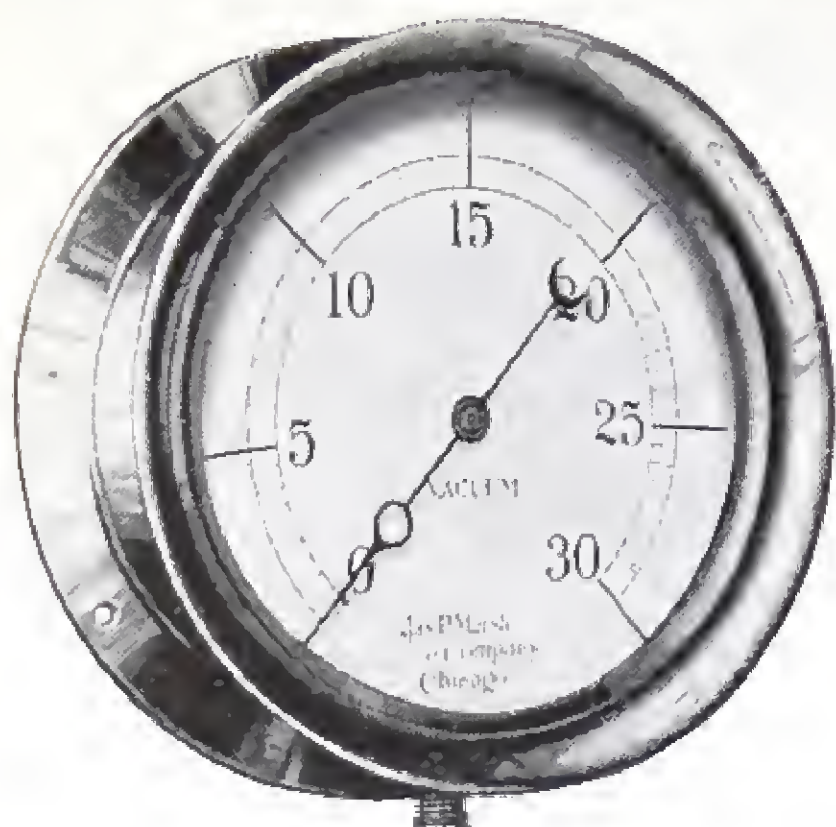


Fig. 685

TAYLOR-FORBES
VACUUM
GAUGES



Fig. 689. Turned in Ring

Diameter of Dial.....Inches	2	2½	3	3½	4½	5	5½	6	6¾	8½	10	12	16
Fig. 685—Iron Case Brass Ring.....Each	6.00	6.00	6.00	7.00	8.00	8.00	10.00	13.00	16.00	22.00	32.00	50.00	90.00
Fig. 685—Iron Case N. P. Ring.....Each	6.15	6.15	6.15	7.18	8.20	8.20	10.25	13.50	16.60	22.75	33.00	51.50	92.00
Fig. 689—Iron Case Brass Ring.....Each	6.00	6.00	6.00	7.00	8.00	8.00							
Fig. 689—Iron Case N. P. Ring.....Each	6.15	6.15	6.15	7.18	8.20	8.20							

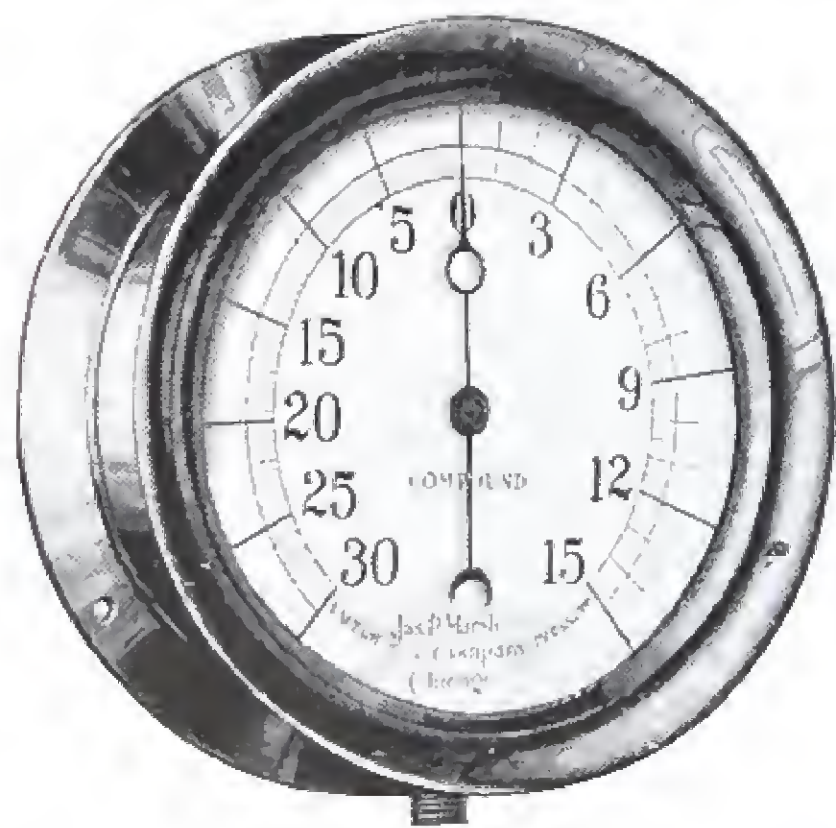


Fig. 687

TAYLOR-FORBES
COMPOUND
PRESSURE AND
VACUUM GAUGES



Fig. 690. Turned in Ring

Diameter of Dial.....Inches	2	2½	3	3½	4½	5	5½	6	6¾	8½	10	12
Fig. 687—Iron Case Brass Ring.....Each	9.00	9.00	9.00	10.00	12.00	14.00	14.00	16.00	20.00	30.00	40.00	60.00
Fig. 687—Iron Case N. P. Ring.....Each	9.15	9.15	9.15	10.18	12.20	14.25	14.25	16.50	20.60	30.75	41.00	61.50
Fig. 690—Iron Case Brass Ring.....Each	9.00	9.00	9.00	10.00	12.00	14.00						
Fig. 690—Iron Case N. P. Ring.....Each	9.15	9.15	9.15	10.18	12.20	14.25						

TAYLOR-FORBES OUNCE GRADUATION RETARD GAUGES

LOW PRESSURE



Fig. 683

PRESSURE AND VACUUM

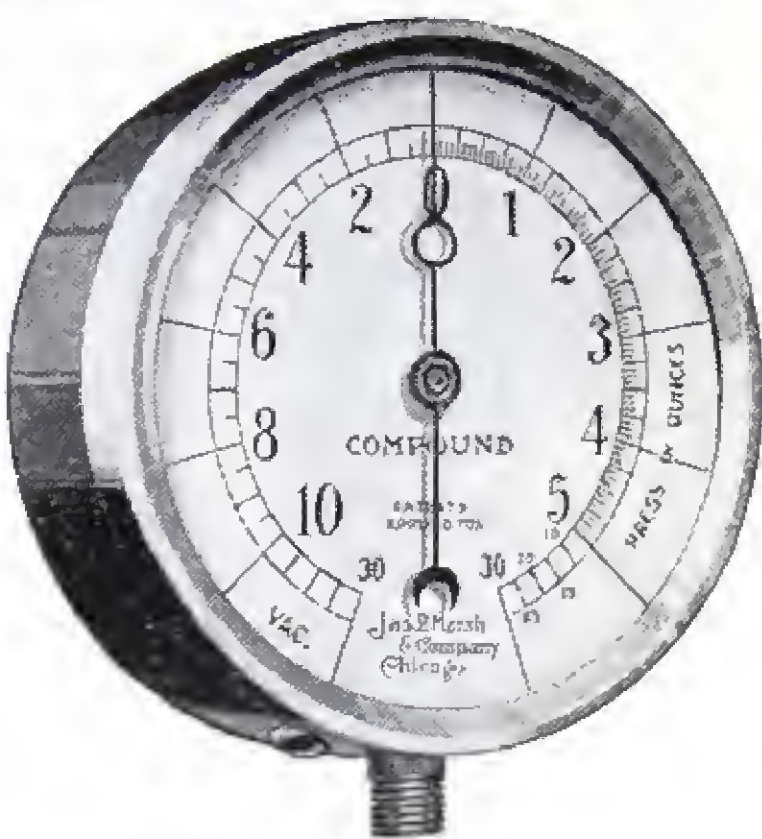


Fig. 684

Fig. 683.	Low Pressure.....	Each	\$ 8.00
Fig. 684.	Pressure and Vacuum.....	Each	12.00

TAYLOR-FORBES THERMOMETERS

STRAIGHT

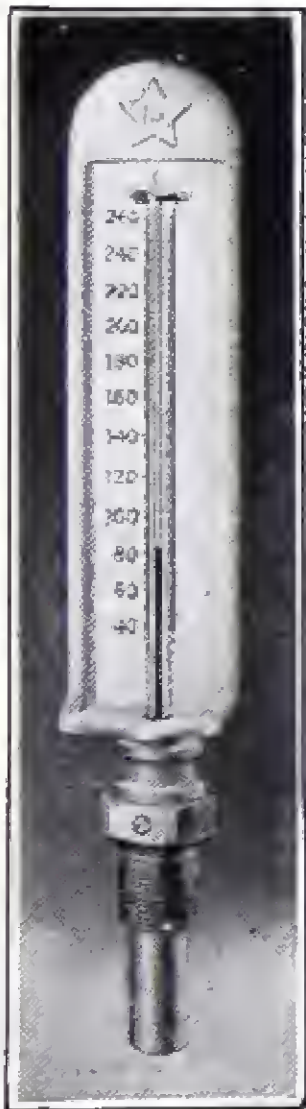


Fig. 692

ANGLE

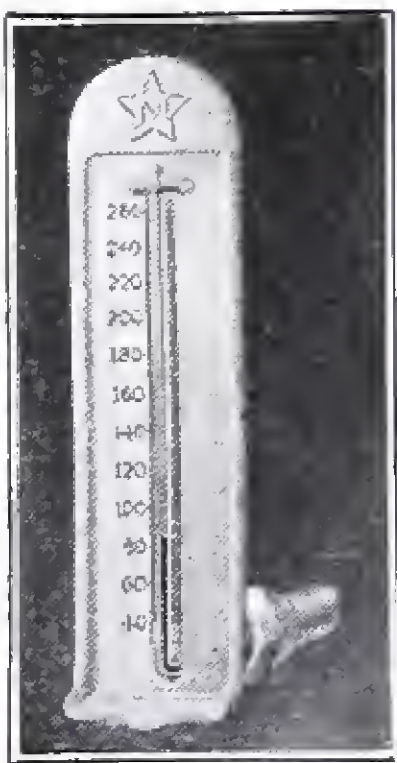


Fig. 693

Fig. 692.	Straight, N. P. Red Liquid.....	Each	\$3.00
Fig. 693.	Angle, N. P. Red Liquid.....	Each	3.25

STEAM GAUGE COCKS
WITH UNION



Fig. 694

STEAM GAUGE SYPHONS
PIPE SYPHON



Fig. 695

MALE AND FEMALE



Fig. 696

Size	Inches	$\frac{1}{2}$ x $\frac{1}{2}$	$\frac{3}{4}$ x $\frac{3}{4}$	$1\frac{1}{2}$ x $1\frac{1}{2}$
Fig. 694—Brass, Finished	Each	1.50		3.50
Fig. 694—Brass, Nickel Plated	Each	2.50		3.50
Fig. 695—Iron Pipe, with Coupling, Rough	Each	.50		
Fig. 695—Brass Pipe	Each	1.75		2.25
Fig. 696—Brass, Rough	Each		1.25	
Fig. 696—Brass, Finished	Each		1.75	
Fig. 696—Brass, Nickel Plated	Each		2.00	

THERMOMETERS
FOR HOT WATER OR STEAM PIPES

HORIZONTAL DIAL



Fig. 697

VERTICAL DIAL



Fig. 698

Can be furnished
either Finished
or Nickel Plated

Brass Case, 4-in. Dial, $\frac{1}{2}$ -in. Pipe Connection. Graduation 50 to 250°. Other Graduations can be supplied to order.

Extension	Inches	2	4	6
Fig. 697—Horizontal Dial	Each	8.00	12.00	15.00
Fig. 698—Vertical Dial	Each	10.00	13.50	16.50

FUSIBLE PLUGS

No. 1. For Outside Insertion

No. 2. For Inside Insertion

Nos. 3 and 4
Boiler Tube Plug



Fig. 699



Fig. 700



Fig. 701

These plugs are filled with Banca Tin. No. 1 Plug for outside insertion illustrates the type mostly used. The chamber for retaining the tin is tapered so that the larger area of tin is at the plain end, exposed to the pressure side, and the smaller area at the Hexagon end, exposed to the fire.

No. 2 Plug is inside type, and used where the plug is inserted from the pressure side. The chamber for retaining the tin is tapered so that the larger area of tin is at the Hexagon end, exposed to the pressure side, and the smaller area, at the threaded end, exposed to the fire.

No. 3 Plug is of boiler tube type for outside insertion.

No. 4 Plug is of boiler type for inside insertion.

The tin filling in No. 3 and No. 4 plugs is in tapered form similar to No. 1 and 2 types.

These plugs should be inserted so that the small end of the taper is exposed to the fire.

These fusible plugs are approved by and registered in the Provincial Boiler Inspection Department, and their use is necessary with boilers subject to Provincial inspection.

Unless otherwise specified, outside type of Plug No. 1 will be supplied.

Size, Pipe Thread.....Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Figs. 699 and 700.....Each	1.20	1.50	2.00	3.00	4.00	6.00
Fig. 701—Nos. 3 and 4.....Each	.60	.75	1.00	1.50	2.00	3.00

SUCTION TEES

This Fitting will make all bad jobs of steam heating work well. It stops one steam connection from backing up on another, prevents all noise when heating water by direct flow of steam.

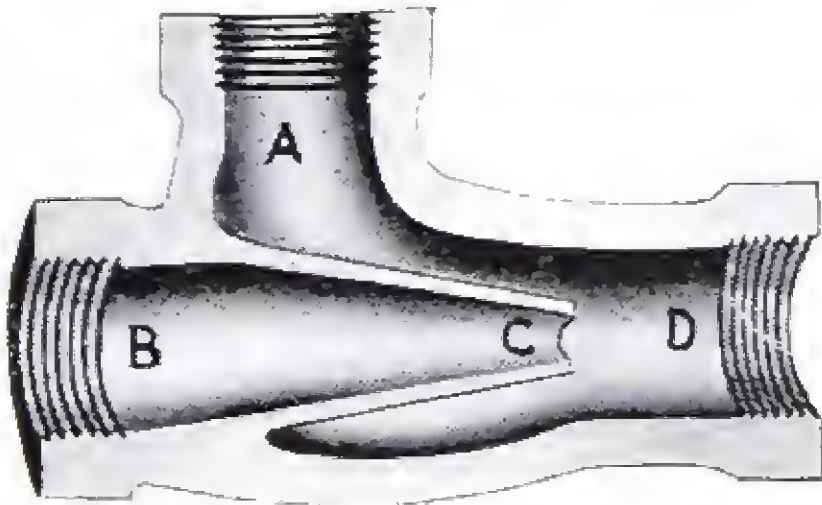


Fig. 702

Where the pipes are in different sections, one section can be used to make the other circulate, all leakage of the pipes stopped and an increase of heat obtained.

Where condensation returns to the boilers, put it on wherever two returns come together.

The shorter return being the stronger, getting its steam first, is connected at B and acting on the ejector principle causes the weaker return connected at A to circulate freely. All can then be connected at D, and carried on to the main waste or return.

It is required wherever two or more connections are made to the same Steam Trap, as it will cause all the condensation to flow freely into the trap, also prevent any backing up.

Size.....Inches	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$
Fig. 702.....Each	2.00	2.50	3.00	4.00	6.00

AIR OR PET COCKS

T. H. SINGLE THREAD

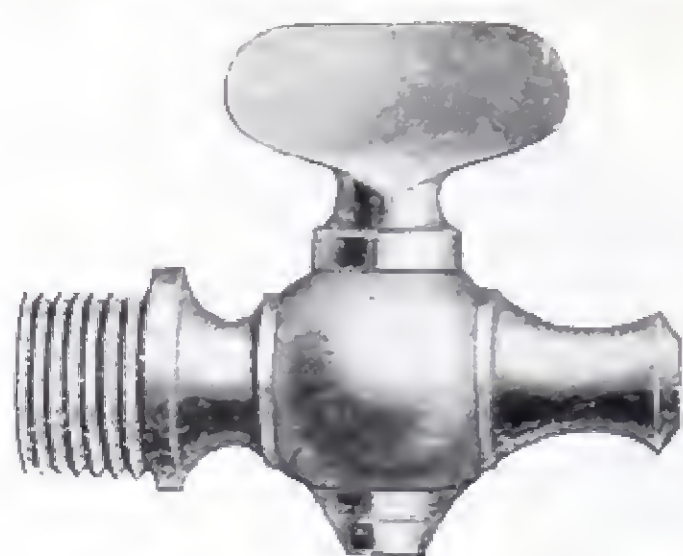


Fig. 703

Sizes $\frac{3}{8}$ and $\frac{1}{2}$ -inch have hexagon shoulder.

L. H. SINGLE THREAD

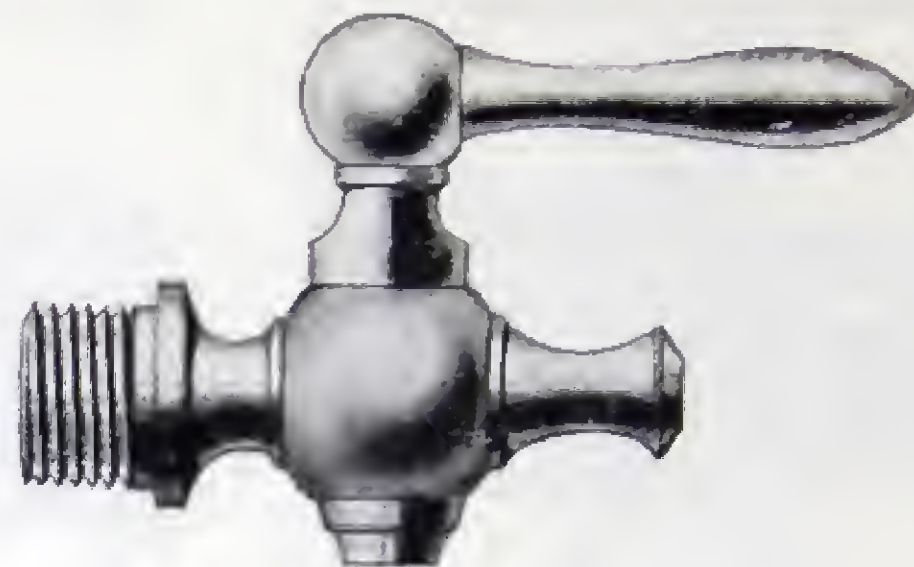


Fig. 704

T. H. FEMALE BOTH ENDS

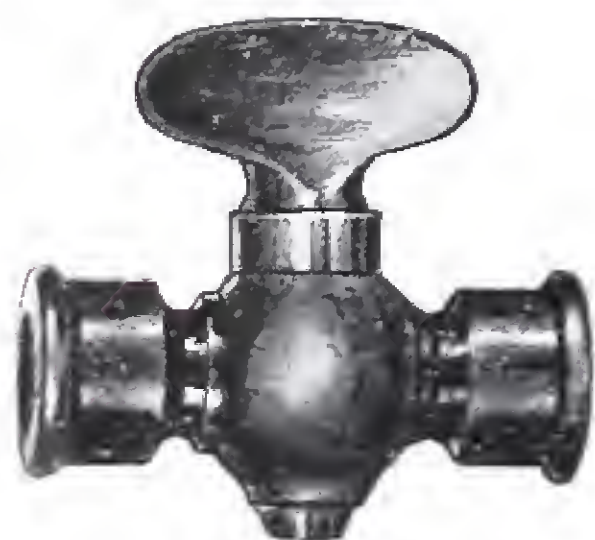


Fig. 705

L. H. FEMALE BOTH ENDS

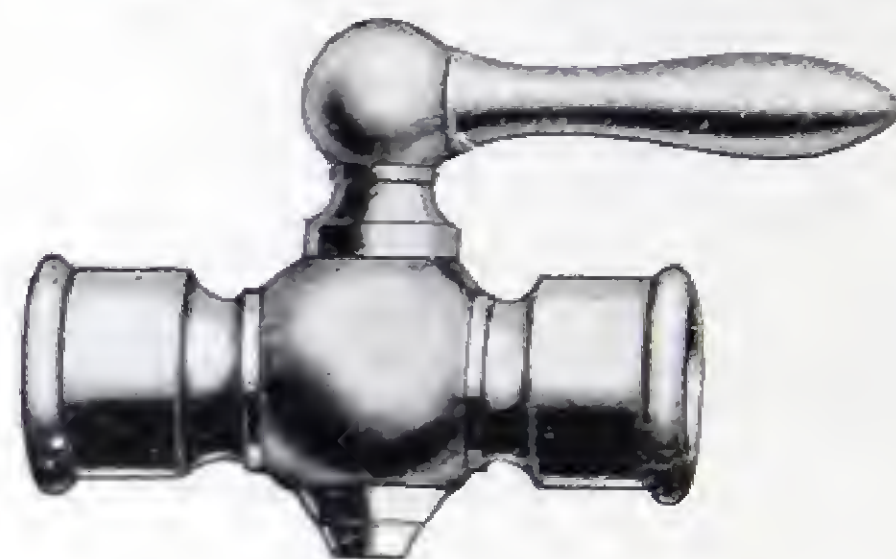


Fig. 706

T. H. DOUBLE THREAD

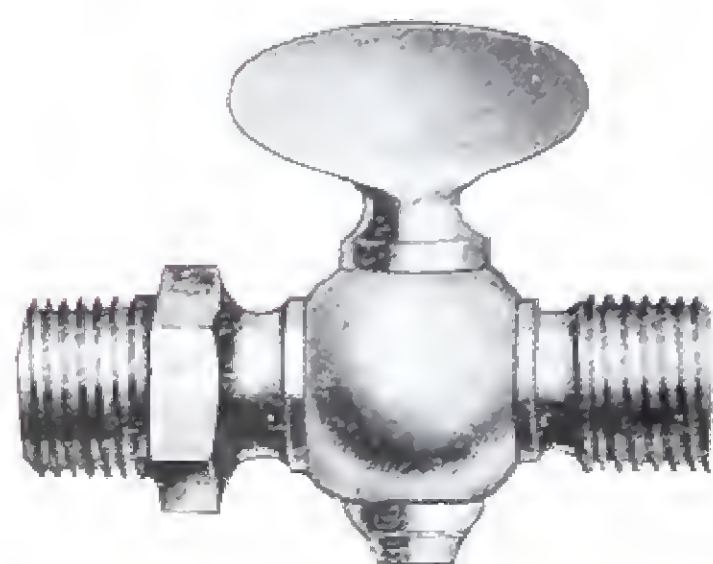


Fig. 707

L. H. DOUBLE THREAD

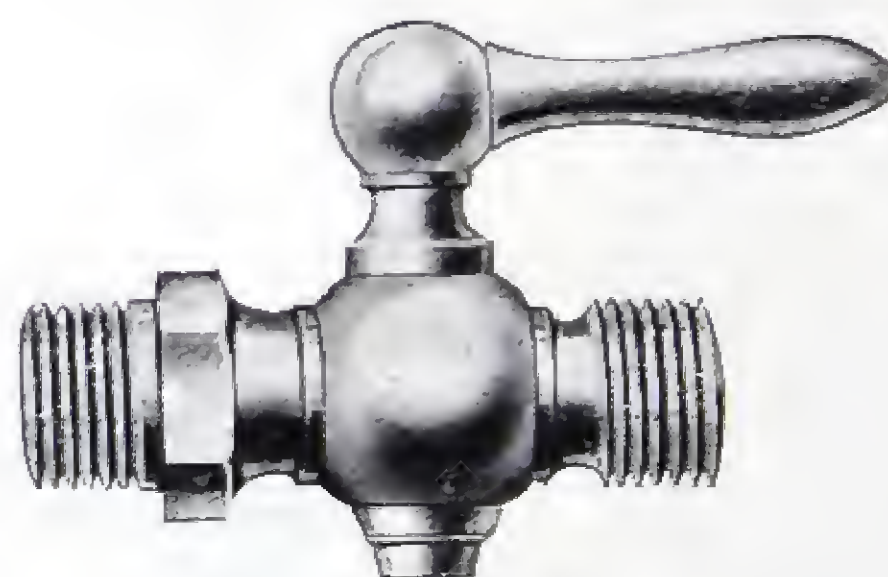


Fig. 708

DESCRIPTION	FINISHED			
Size, Iron Pipe Thread.....Inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$
Fig. 703—T. H. Single Thread.....Each	.40	.45	.50	.60
Fig. 704—L. H. Single Thread.....Each	.55	.60	.65	.75
Fig. 705—T. H. Female Both Ends.....Each	.65	.70	.85	1.10
Fig. 706—L. H. Female Both Ends.....Each	.80	.85	1.00	1.25
Fig. 707—T. H. Double Thread.....Each	.55	.65	.75	.90
Fig. 708—L. H. Double Thread.....Each	.70	.80	.90	1.05

AIR OR PET COCKS

TEE HANDLE, MALE AND FEMALE

LEVER HANDLE, MALE AND FEMALE



Fig. 709

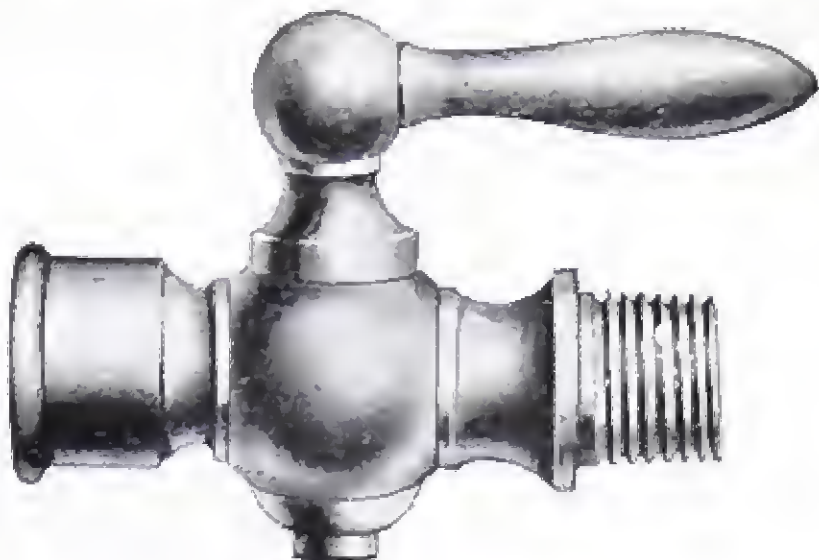


Fig. 710

EXTRA HEAVY PATTERN

EXTRA HEAVY PATTERN



Fig. 711

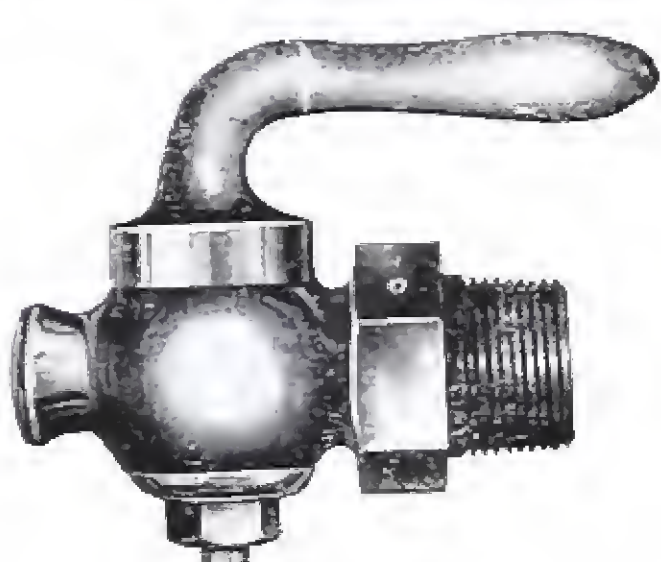


Fig. 712

EXTRA HEAVY PATTERN

EXTRA HEAVY PATTERN

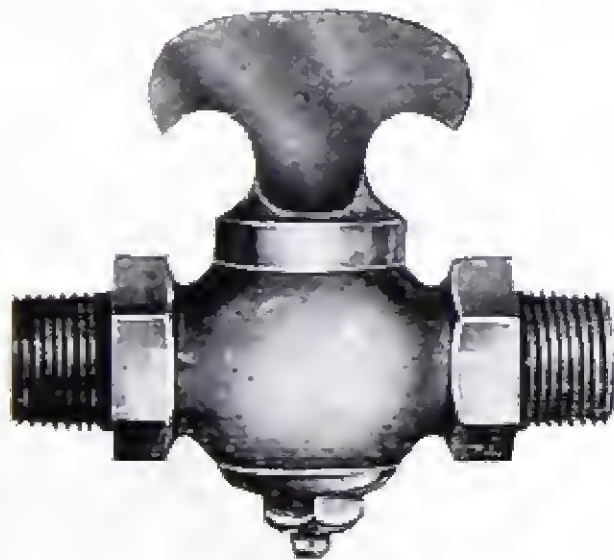


Fig. 713

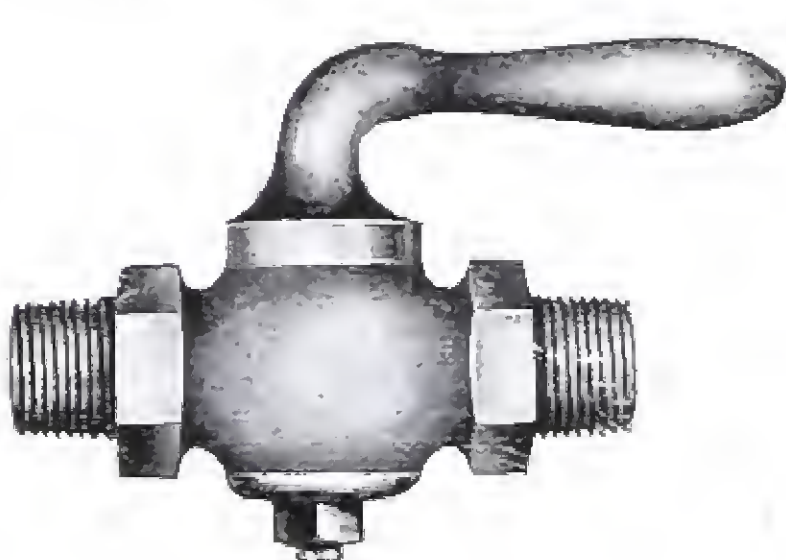


Fig. 714

DESCRIPTION	FINISHED			
	1/8	1/4	3/8	1/2
Size, Iron Pipe Thread.....Inches				
Fig. 709—T. H. Male and Female.....Each	.75	.80	.90	1.15
Fig. 710—L. H. Male and Female.....Each	.90	.95	1.05	1.30
Fig. 711—T. H. Extra Heavy.....Each	.45	.50	.50	.60
Fig. 712—L. H. Extra Heavy.....Each	.60	.65	.65	.75
Fig. 713—T. H. Extra Heavy.....Each	.75	.85	1.00	1.20
Fig. 714—L. H. Extra Heavy.....Each	.80	1.00	1.15	1.35

DRAIN COCKS

LEVER HANDLE

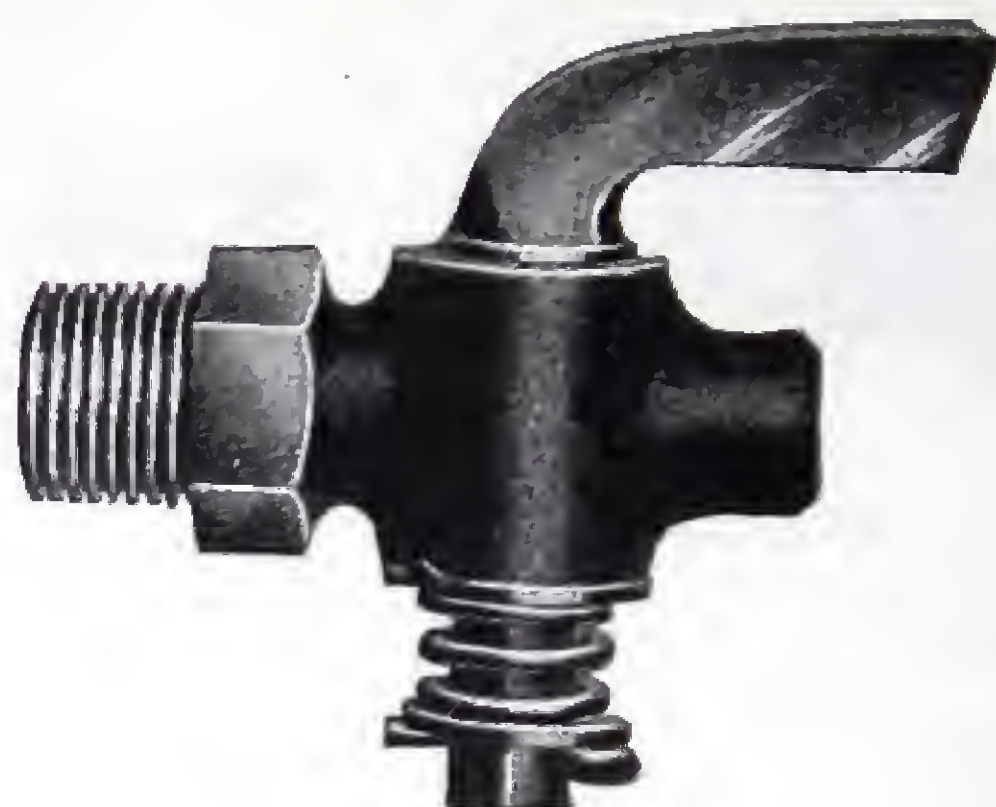


Fig. 715

Size	Inches	$\frac{1}{8}$	$\frac{1}{4}$
Rough	Each	.45	.60
With Polished Handle	Each	.50	.65

CYLINDER COCKS

LEVER HANDLE Male and Female

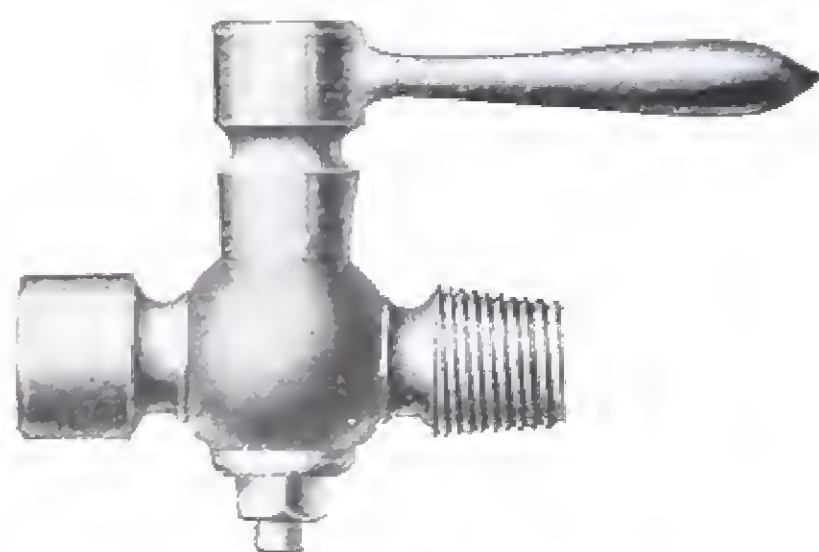


Fig. 717

FORKED LEVER HANDLE Male and Female

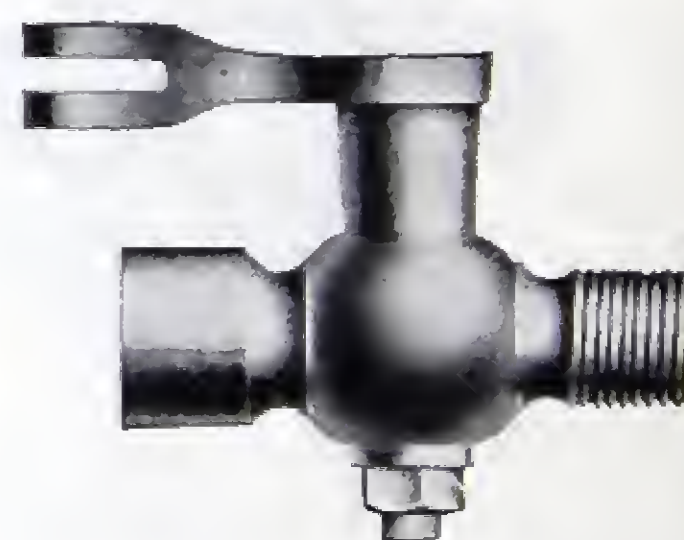


Fig. 718

DESCRIPTION	FINISHED			NICKEL PLATED		
Screwed Iron Pipe Thread.....Inches.	$\frac{3}{8} \times \frac{3}{8}$	$\frac{1}{2} \times \frac{3}{8}$	$\frac{1}{2} \times \frac{1}{2}$	$\frac{3}{8} \times \frac{3}{8}$	$\frac{1}{2} \times \frac{3}{8}$	$\frac{1}{2} \times \frac{1}{2}$
Fig. 717—Lever Handle, Male and Female.....Each	1.25	1.50	1.75	1.50	1.75	2.00
Fig. 718—Forked Handle, Male and Female.....Each	1.40	1.70	2.00	1.65	1.95	2.35

CYLINDER COCKS

TEE HANDLE—Bent Nose



Fig. 719

LEVER HANDLE—Bent Nose



Fig. 720

TEE HANDLE—Screwed Nose

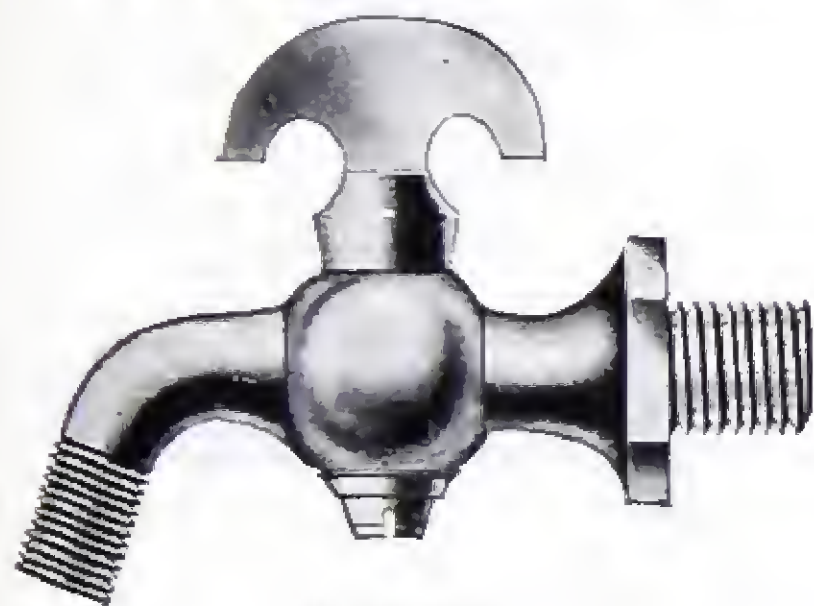


Fig. 721

LEVER HANDLE—Screwed Nose

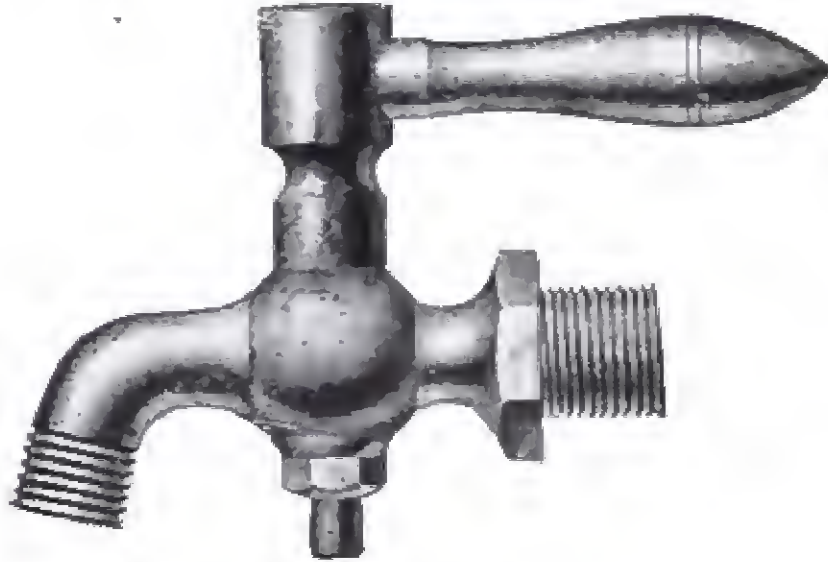


Fig. 722

FORKED LEVER HANDLE
Extra Heavy—Male both Ends



Fig. 723

FORKED LEVER HANDLE
Extra Heavy—Female both Ends



Fig. 724

DESCRIPTION	FINISHED				
	1/8	1/4	3/8	1/2	3/4
Size, Iron Pipe Thread.....Inches					
Fig. 719—Tee Handle, Bent Nose, Plain.....Each	.70	1.00	1.15	1.60	2.35
Fig. 720—Lever Handle, Bent Nose, Plain.....Each	.85	1.15	1.30	1.85	2.60
Fig. 721—Tee Handle, Bent Nose, Screwed.....Each	.85	1.20	1.40	1.95	2.75
Fig. 722—Lever Handle, Bent Nose, Screwed....Each	1.00	1.35	1.60	2.25	3.00
Fig. 723—Forked Lever Handle, Male Ends.....Each		1.15	1.30	1.90	.....
Fig. 724—Forked Lever Handle, Female Ends..Each		1.35	1.50	2.10	.....

CYLINDER COCKS

FORKED LEVER HANDLE
Bent Nose

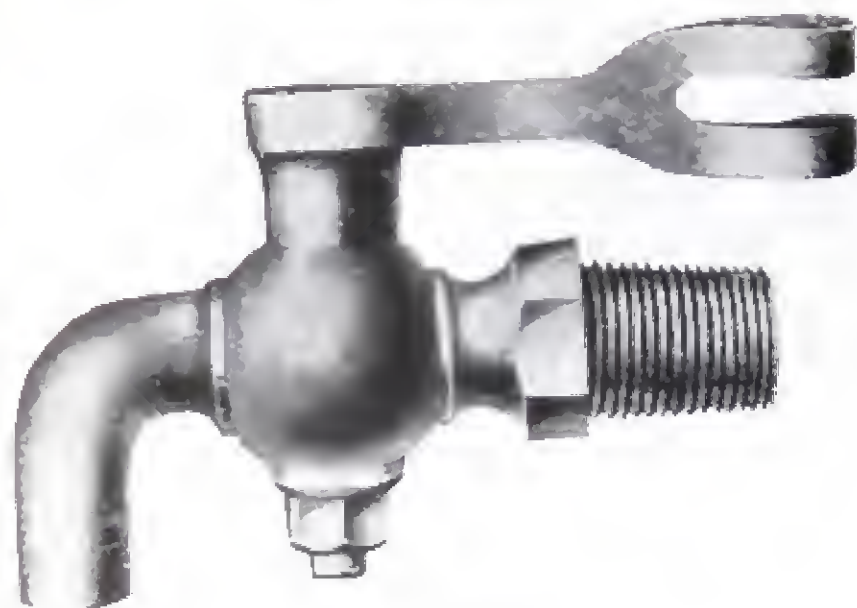


Fig. 725

FORKED LEVER HANDLE
Straight Nose



Fig. 726

FORKED LEVER HANDLE
Straight Nose

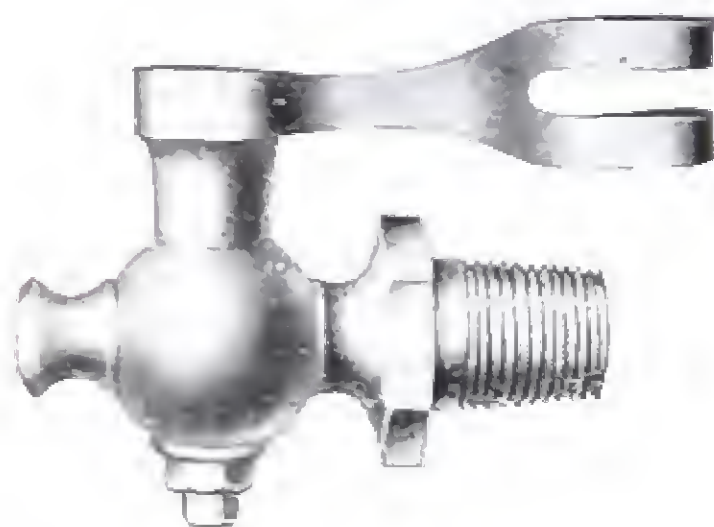


Fig. 727

LEVER HANDLE
Single or Double Coupling

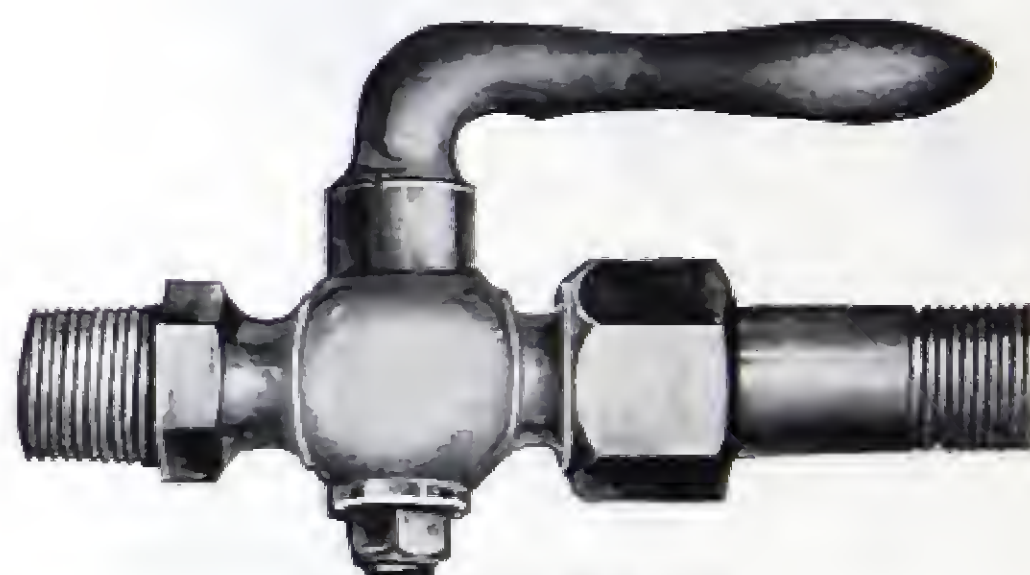


Fig. 728

LEVER HANDLE, 1½-IN. SHANK
Straight Nose



Fig. 729

LEVER HANDLE, 1½-IN. SHANK
Bent Nose



Fig. 730

DESCRIPTION	FINISHED			NICKEL PLATED		
	¼	⅜	½	¼	⅜	½
Size, Iron Pipe Thread.....Inches						
Fig. 725—Bent Nose.....Each	1.55	1.70	2.20	1.85	2.00	2.60
Fig. 726—Straight Nose.....Each	1.55	1.70	2.20	1.85	2.00	2.60
Fig. 727—Straight Nose.....Each	1.30	1.40	1.85	1.60	1.70	2.25
Fig. 728—Single Coupling.....Each	1.75	2.00	2.50	2.10	2.35	3.00
Fig. 728—Double Coupling.....Each	2.00	2.25	3.00	2.35	2.75	3.75
Fig. 729—Straight Nose.....Each	1.20	1.30	1.80	1.45	1.60	2.20
Fig. 730—Bent Nose.....Each	1.30	1.40	2.00	1.55	1.70	2.40

EXPANSION TANKS

GALVANIZED IRON

LIGHT PATTERN



Fig. 731

HEAVY PATTERN



Fig. 731A

Diameter and Height.....	Inches	12 x 20	12 x 24	12 x 30	12 x 40
Capacity in Gallons.....		10	12	15	20
Fig. 731—Without Gauge	Each		4.00	5.00	
Fig. 731A—Without Gauge	Each	12.00		12.80	13.60

AUTOMATIC EXPANSION TANKS



Fig. 738

All Fittings are of Brass and Aluminum. Made in sizes 12 x 24, 12 x 30 and 14 x 30.
Prices on Application.

EXPANSION TANK MOUNTINGS

BRONZE



Fig. 739



Fig. 740

Fig. 739—Without Glass or Guards, for 7/8 in. Glass, Reamed	Each	2.00
Fig. 739—Without Glass or Guards, for 7/8 in. Glass, Finished	Each	2.80
Fig. 739—Without Glass or Guards, Nickel Plated	Each	3.20
Fig. 740—With 1/2 x 14 in. Glass and Two Guards, Finished	Each	4.00
Fig. 740—With 1/2 x 14 in. Glass and Two Guards, Nickel Plated	Each	4.80

CENTRE SUPPORTS AND COUPLINGS

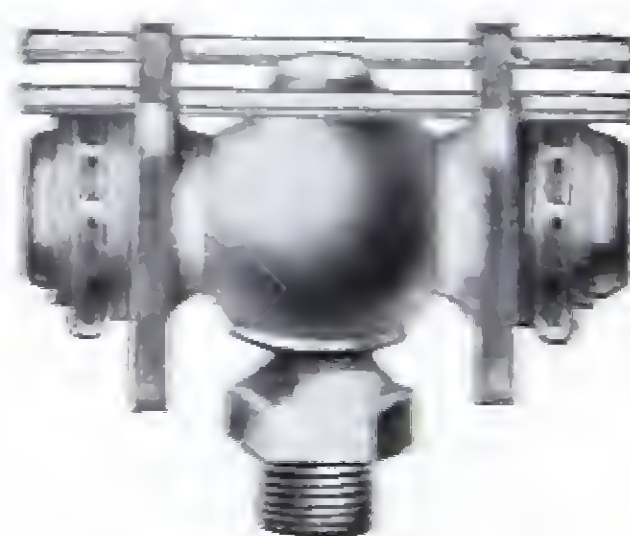
FOR GAUGE GLASSES

Centre Support



Fig. 741

Centre Support



With Lugs
Fig. 742

Coupling



Fig. 743

Size of Gauge Glass	Inches	5/8	3/4
Fig. 741—Finished	Each	5.00	5.50
Fig. 741—Nickel Plated	Each	6.00	6.50
Fig. 742—With Lugs, Finished	Each	6.00	6.50
Fig. 742—With Lugs, Nickel Plated	Each	7.00	7.50
Fig. 743—Coupling, Finished	Each	4.00	4.50
Fig. 743—Coupling, Nickel Plated	Each	5.00	5.50

GAUGE GLASSES



Fig. 744

Gauge Glasses are made in two qualities. The "Invicta" brand being for Standard Pressures, and the "Adamant" brand for High Pressures. The "Adamant" brand is renowned for resisting the highest steam pressures, the greatest heat, and all variations of temperature.

PRICE LIST OF "INVICTA" OR "ADAMANT" BRANDS

Outside Diameter	Length.....Inches	10	11	12	13	14	15	16	18	20	24	30	36	48	60	72
	1/2 and 5/8-in.....Each	.25	.27	.30	.32	.35	.37	.40	.45	.50	.60	.75	.90	1.21	1.51	1.82
	3/4-in.....Each	.30	.33	.36	.40	.43	.46	.49	.55	.62	.74	.93	1.12	1.50	1.88	2.26
	7/8-in.....Each	.42	.47	.51	.55	.59	.63	.68	.76	.85	1.01	1.27	1.52	2.03	2.54	3.04
	1-in.....Each	.51	.56	.61	.66	.71	.76	.81	.91	1.01	1.22	1.52	1.83	2.43	3.04	3.65
	1 1/4-in.....Each			1.35		1.50		1.67	1.85	2.17	2.67					
	1 1/2-in.....Each			1.67		1.85		2.00	2.17	2.50	3.00					

RED REFLECTING GAUGE GLASSES

Fig. 745

These Gauge Glasses have a red line on the back, which is magnified by the water into a broad line of rich red colour, thus rendering it very distinct.

Length.....Inches	12	13	14	15	16	18	20	24
Outside Diam. 1/2-in.....Each	.30	.32	.35	.37	.40	.45	.50	.60
Outside Diam. 5/8-in.....Each	.30	.32	.35	.37	.40	.45	.50	.60
Outside Diam. 3/4-in.....Each	.36	.40	.43	.46	.49	.55	.62	.74

GAUGE GLASS WASHERS

Square Wall

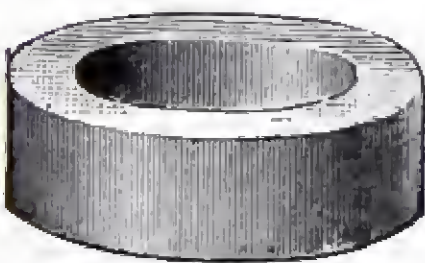


Fig. 746

Round Wall

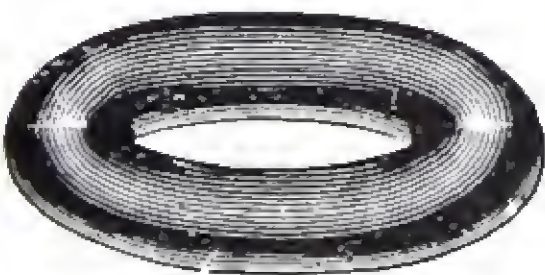


Fig. 749

Perfect

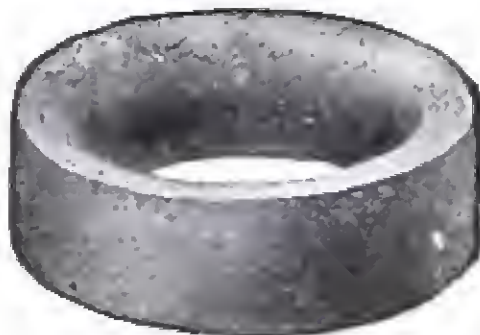


Fig. 750

Diameter of Glass.....Inches	1/2	5/8	3/4	7/8	1	1 1/4
Fig. 746—Square Wall.....Per Gross	1.20	1.30	1.50	1.80	2.50	3.50
Fig. 749—Round Wall.....Per Gross	1.50	1.70	2.00			
Fig. 750—Perfect.....Per Gross	1.50	1.70	2.00			

ELECTRIC
WELDED

GALVANIZED RANGE BOILERS

RIVETTED OR ELECTRIC WELDED

RIVETTED



Fig. 751



Fig. 752 WITH COIL



Fig. 753

Capacity	Length	Diameter	Tappings	List Price Vertical only	Extra with Coils
5 Gal.	10"	12"	1" or 1 1/4"	13.50	
12 Gal.	24"	12"	"	14.00	
18 Gal.	36"	12"	"	15.00	
25 Gal.	48"	12"	"	16.50	24.00
30 Gal.	5'	12"	"	17.50	24.00
35 Gal.	5'	13"	"	20.50	28.00
40 Gal.	5'	14"	"	22.75	32.00
52 Gal.	5'	16"	"	38.00	36.00
66 Gal.	5'	18"	"	60.75	45.00
82 Gal.	5'	20"	"	74.00	55.00
100 Gal.	5'	22"	"	103.00	65.00
120 Gal.	5'	24"	"	117.00	75.00
144 Gal.	6'	24"	1 1/4" or 1 1/2"	164.00	85.00
168 Gal.	7'	24"	"	187.00	100.00
192 Gal.	8'	24"	"	210.00	115.00

Extra for Each Tapping Required for Horizontal Boilers.

1" or Smaller.....\$2.25

1 1/4" to 2".....\$3.50

2 1/2" to 3".....\$6.00

RANGE BOILER STANDS

ADJUSTABLE

TAYLOR



Fig. 755

Adjustable in Diameter from $11\frac{1}{2}$ " to $13\frac{1}{2}$ ".
Height, 15".

STAHL
(Patented)

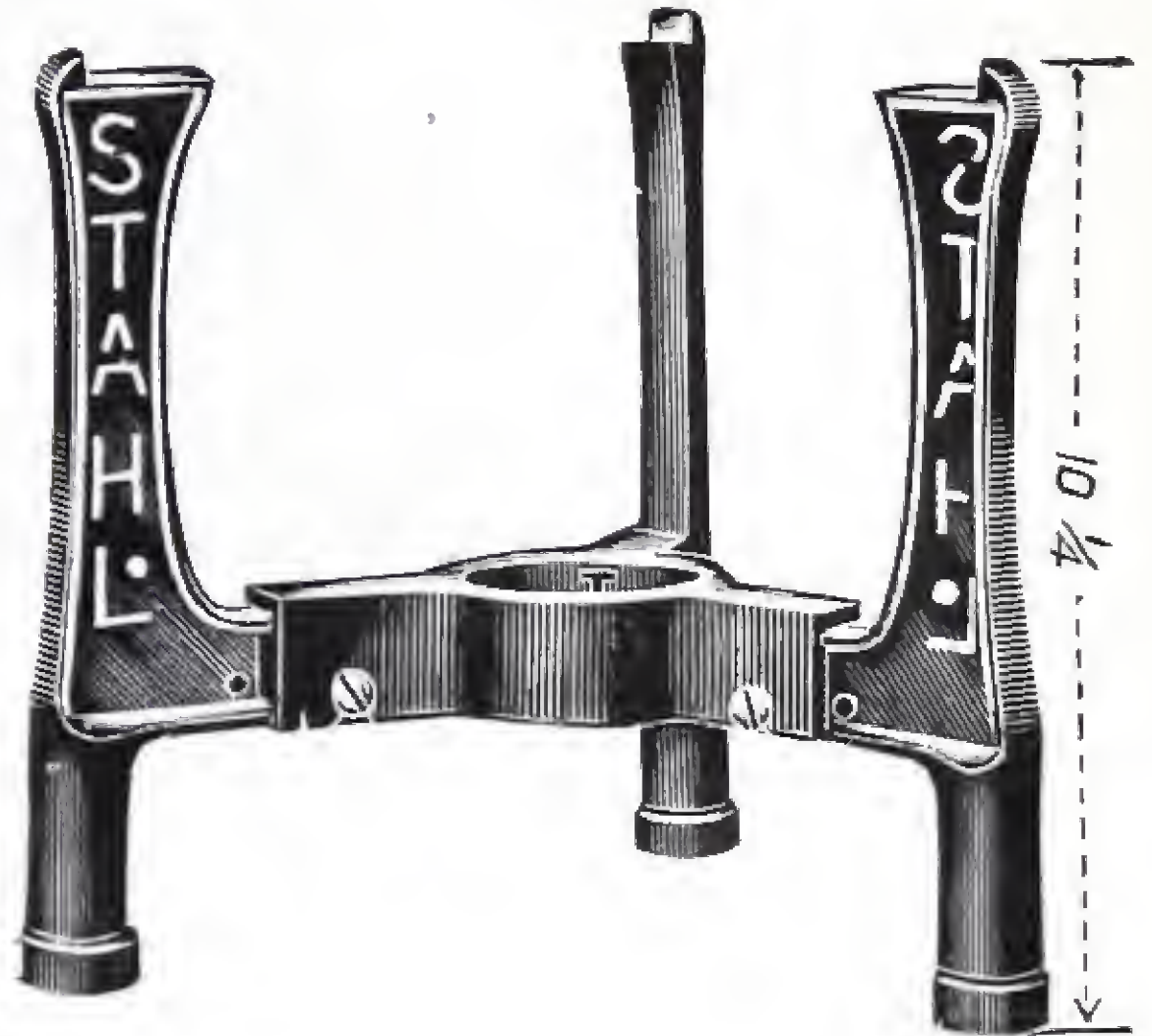


Fig. 756

Adjustable in Height and Diameter
Fits 12", 13", 14" or 15" Boiler.
Height, $10\frac{1}{4}$ ".

Prices on Application.

SINK BRACKETS

CAST IRON—ADJUSTABLE

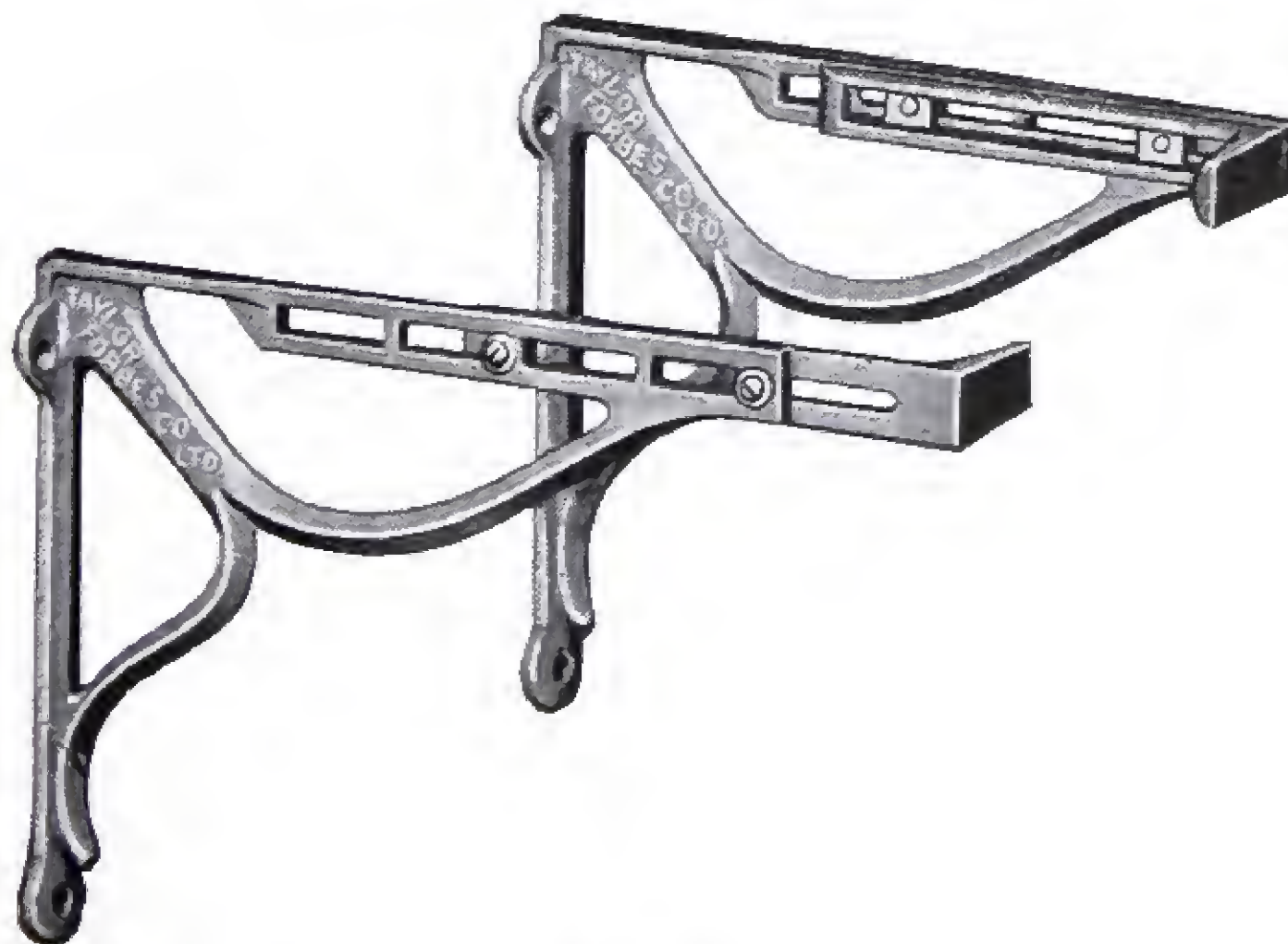


Fig. 754

Size of Back, $2 \times 10\frac{1}{2}$ ".
Length of Arm Closed, $12\frac{3}{4}$ ".
Length of Arm Extended, 18".
Prices on Application.

STORAGE TANKS

BLACK OR GALVANIZED

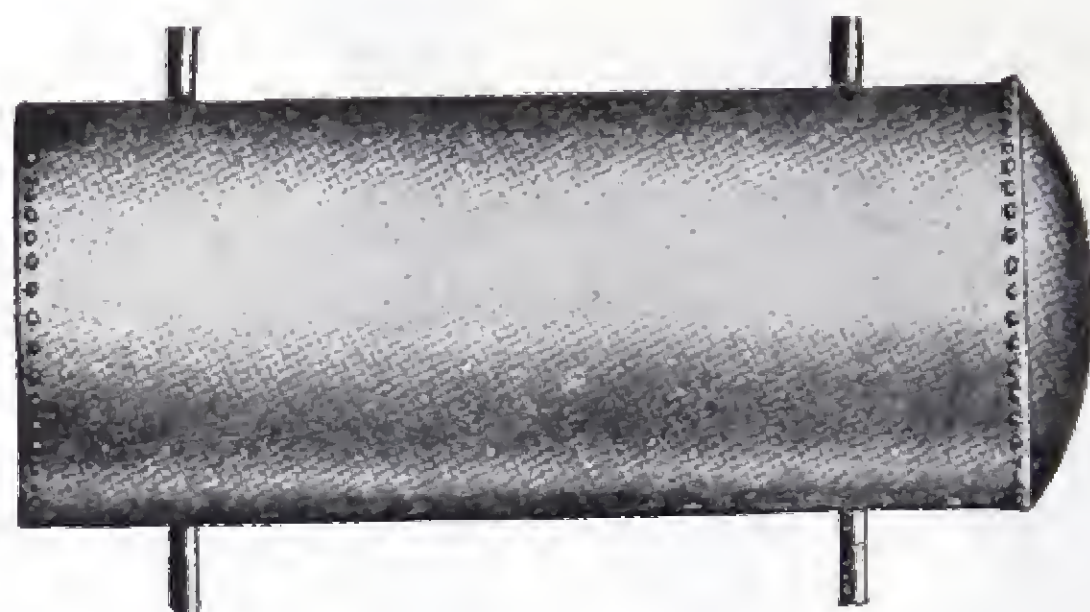


Fig. 757

Diameter Inches	Length Feet	Capacity U. S. Gallons	Regular Openings Inches
24	4	100	1½
24	5	120	1½
24	6	140	1½
30	4	145	2
30	5	180	2
30	6	220	2
30	7	250	2
30	8	295	2
36	6	315	2
36	7	365	2
36	8	420	2
36	10	525	2
42	6	435	2
42	7	500	2
42	8	575	2
42	10	720	2
42	12	865	2
42	14	1000	2

Prices on Application.

EXPANSION JOINTS
BRONZE

125 Pounds Working Pressure



Fig. 765. Screwed
STANDARD TRAVERSE

Size.....Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Fig. 765.....Each	1.50	2.20	2.75	4.00	5.00	8.00	17.50	24.00
Traverse.....Inches	2	$2\frac{1}{4}$	$2\frac{1}{4}$	$2\frac{1}{4}$	$2\frac{1}{4}$	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{3}{4}$

SPECIAL TRAVERSE

Size.....Inches	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$
4-inch Traverse.....Each	3.80	4.00	4.90	6.30	7.40	9.10	
6-inch Traverse.....Each		8.25	9.00	10.00	11.50	13.50	24.00
8-inch Traverse.....Each		9.00	10.00	11.25	13.00	15.50	27.00
10-inch Traverse.....Each		9.75	11.00	12.50	14.50	17.50	30.00
12-inch Traverse.....Each		10.50	12.00	13.75	16.00	19.50	33.00

IRON BODY—BRONZE MOUNTED
125 Pounds Working Pressure



Fig. 766. Screwed
STANDARD TRAVERSE

Size.....Inches	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	7	8	9	10	12
Fig. 766..Each	7.00	8.00	10.00	14.00	18.00	30.00	38.00	45.00	70.00	100.00	110.00	160.00	225.00
Traverse.....In.	$2\frac{1}{2}$	$2\frac{1}{2}$	$2\frac{3}{4}$	3	$3\frac{1}{4}$	$3\frac{1}{2}$	4	5	6	7	7	7	8

SPECIAL TRAVERSE

Size.....Inches	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	$4\frac{1}{2}$	5	6	7	8
6-inch Traverse.....Each	11.00	13.00	17.50	25.00	30.00	40.00	45.00	55.00		
10-inch Traverse.....Each	16.00	19.00	25.00	35.00	42.00	52.00	62.00	80.00	100.00	140.00
12-inch Traverse.....Each	18.50	22.00	29.00	40.00	48.00	60.00	70.00	92.50	115.00	160.00

EXPANSION JOINTS
IRON BODY—BRONZE MOUNTED
 125 Pounds Working Pressure



Fig. 767. Flanged
 STANDARD TRAVERSE

Size.....Inches	2	2½	3	3½	4	4½	5	6	7	8	9	10	12
Fig. 767..Each	15.00	16.00	18.50	25.00	30.00	40.00	48.00	55.00	80.00	110.00	120.00	175.00	250.00
Traverse.. Ins.	2½	2½	2¾	3	3¼	3½	4	5	6	7	7	7	8

SPECIAL TRAVERSE

Size.....Inches	2	2½	3	3½	4	4½	5	6	7	8	10	12
6-in. Traverse..Ea...	18.00	20.00	25.00	35.00	40.00	50.00	55.00	65.00				
10-in. Traverse..Ea.	23.00	26.00	32.50	45.00	52.00	63.00	72.00	90.00	112.00	150.00	225.00	300.00
12-in. Traverse..Ea.	25.50	29.00	36.50	50.00	58.00	70.00	80.00	102.50	127.00	170.00	255.00	350.00
Dia. of Flanges..Ins.	6	7	7½	8½	9	9¼	10	11	12½	13½	16	19

DOUBLE EXPANSION JOINTS
IRON BODY—BRONZE MOUNTED
 125 Pounds Working Pressure



Fig. 768. FLANGED WITH BASE FLANGE

Size.....Inches	2	2½	3	3½	4	4½	5	6	7	8	9	10	12
Fig. 768...Ea.	32.50	37.50	42.50	55.00	70.00	85.00	100.00	120.00	155.00	190.00	240.00	290.00	390.00
Traverse on each sleeve. inches.....	4	4	4	4	4	4	4	4	4	4	4	3½	3½
Diameter of Flanges Ins.	6	7	7½	8½	9	9¼	10	11	12½	13½	15	16	19

Double Expansion Joints can be furnished with screwed ends at same price.

EXTRA HEAVY EXPANSION JOINTS

IRON BODY—BRONZE MOUNTED

250 Pounds Working Pressure

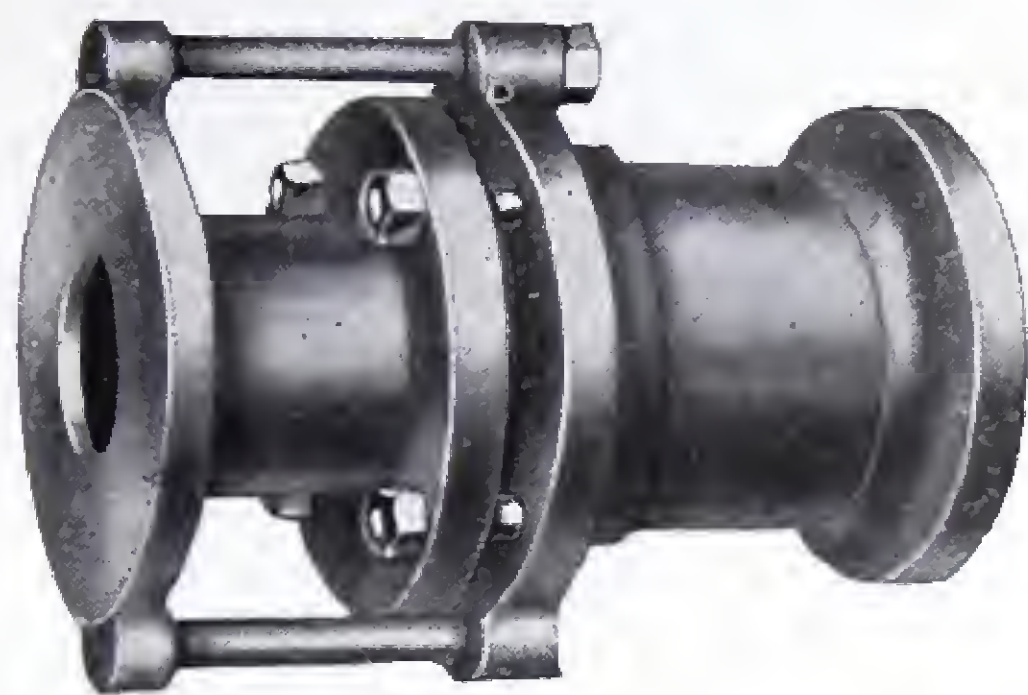


Fig. 769
Fig. 770. SCREWED
Fig. 769. FLANGED

STANDARD TRAVERSE

Size.....Inches	2	2½	3	3½	4	5	6	7	8	9	10	12
Fig. 770—Scr'd...Each	30.00	40.00	50.00	60.00	70.00	80.00	100.00	120.00	145.00	190.00	240.00	290.00
Fig. 769—Flg'd...Each	35.00	45.00	55.00	65.00	75.00	85.00	105.00	125.00	150.00	200.00	250.00	300.00
Traverse.....Inches	2½	2½	2¾	3	3¼	4	5	6	7	7	7	8
Diameter of Flanges, Inches	6½	7½	8¼	9	10	11	12½	14	15	16¼	17½	20½

SPECIAL TRAVERSE

Size.....Inches	2	2½	3	3½	4	5	6	7	8
4-inch Traverse, Screwed.....Each	35.00	45.00	55.00	65.00	75.00				
4-inch Traverse, Flanged.....Each	40.00	50.00	60.00	70.00	80.00				
6-inch Traverse, Screwed.....Each	40.00	50.00	60.00	70.00	80.00	85.00	105.00		
6-inch Traverse, Flanged.....Each	45.00	55.00	65.00	75.00	85.00	90.00	110.00		
10-inch Traverse, Screwed.....Each	45.00	55.00	65.00	75.00	85.00	95.00	125.00	145.00	175.00
10-inch Traverse, Flanged.....Each	50.00	60.00	70.00	80.00	90.00	100.00	130.00	150.00	180.00
12-inch Traverse, Screwed.....Each	50.00	60.00	70.00	80.00	90.00	105.00	135.00	160.00	205.00
12-inch Traverse, Flanged.....Each	55.00	65.00	75.00	85.00	95.00	110.00	140.00	165.00	210.00

ECONOMY PUMPS

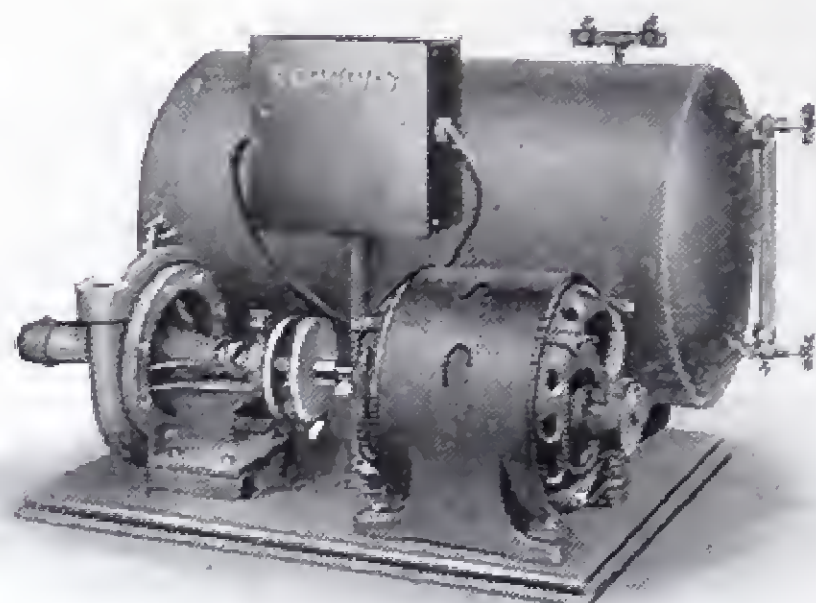


Fig. 2176

ECONOMY CENTRIFUGAL AUTOMATIC CONDENSATION PUMP AND RECEIVER

An electric driven condensation pump specially designed to handle hot water. Receivers are furnished very close to floor—making it unnecessary to pit. Pump is direct connected by flexible coupling to motor. The automatic control consists of a float switch, enclosed in a metal cabinet. Connections in accordance with Underwriters Rules.

Standard capacities to drain from 1,000 to 50,000 sq. ft. radiation. Can also be supplied in the underground type. Larger sizes special.

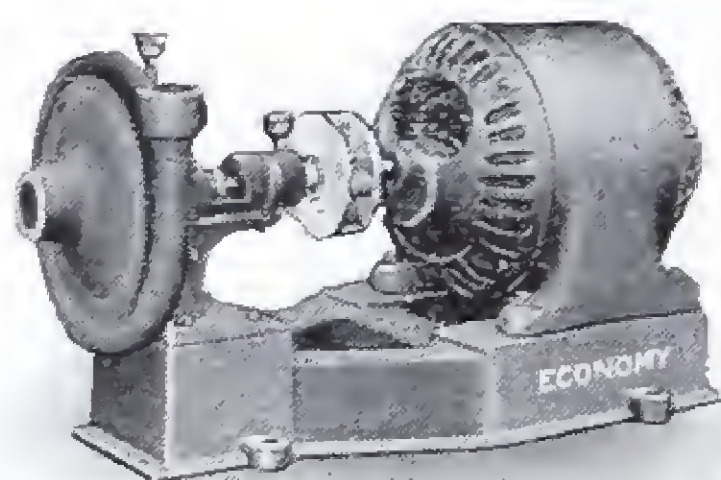


Fig. 2132. Type A

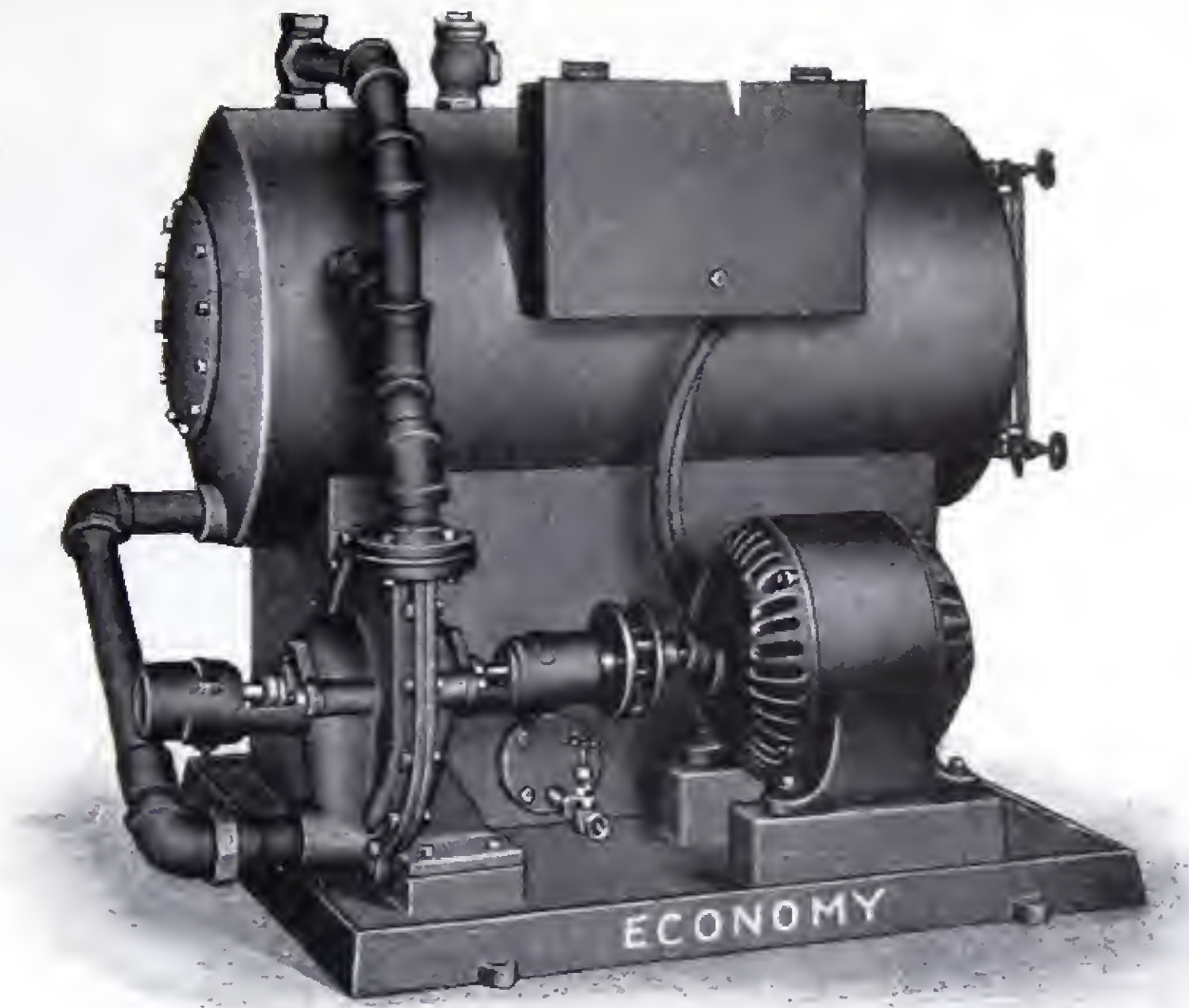
ECONOMY HOT WATER CIRCULATING PUMPS

Fitted with out-board ring oil bearings—Can be supplied either direct connector or belt driven.

Made in capacities to handle from 10 to 725 gals. per minute.

Special Pump Catalogue sent on request.

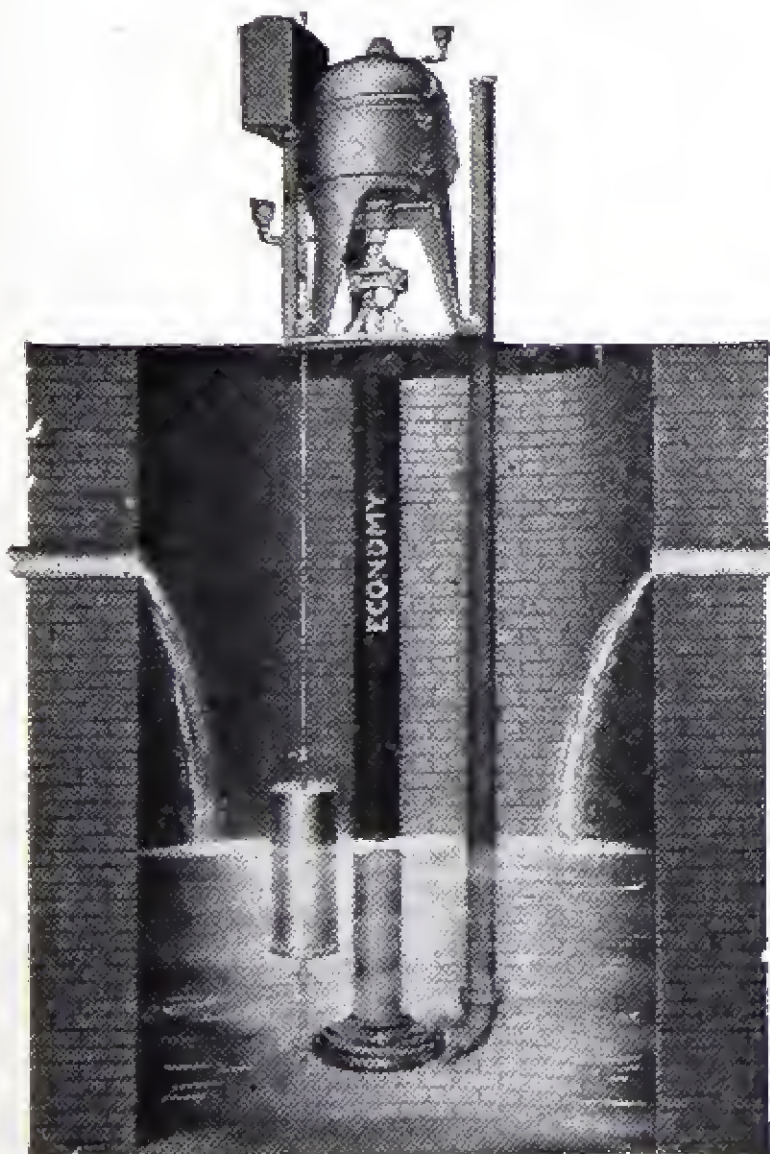
ECONOMY PUMPS



Patent Pending

Fig. 2234

Economy Centrifugal Vacuum and Boiler Feed Pump



Economy Submerged Bilge and Sewage Pump

A compact unit made in sizes and capacities to pump
from 7 to 1200 gals. per minute.

Special Pump Catalogue sent on request.

Fig. 2104. Types B. and C.

YOUNG CENTRIFUGAL VACUUM AND BOILER FEED PUMPS

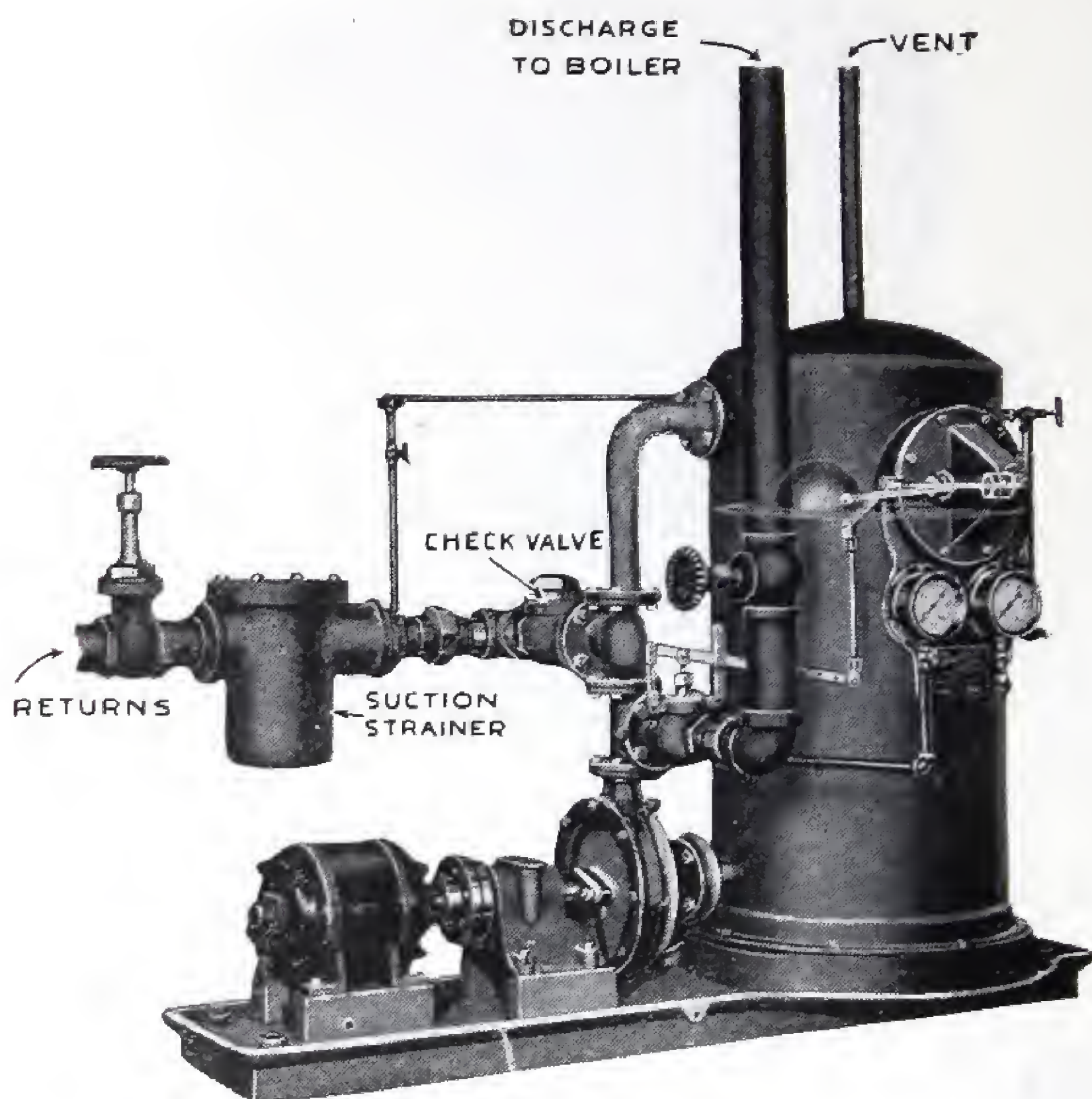


Fig. 771

SIZES AND CAPACITIES

Size Number.....	0	1	2	3	4	5
Square Feet of Radiation.....	5000	8000	16000	26000	40000	65000
Horse Power.....	$\frac{3}{4}$	$1\frac{1}{2}$	2	3	5	$7\frac{1}{2}$
U. S. G. P. M.....	8	12	25	40	60	100
Size Suction.....	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	$1\frac{1}{2}$ "	2"	$2\frac{1}{2}$ "	3"
Size Discharge.....	$\frac{3}{4}$ "	1"	$1\frac{1}{4}$ "	$1\frac{1}{2}$ "	2"	2"

Prices on Application.

HEPBURN VACUUM PUMPS
WITH MECHANICALLY-ACTUATED STEAM VALVE
Low Pressure Packed Piston Type

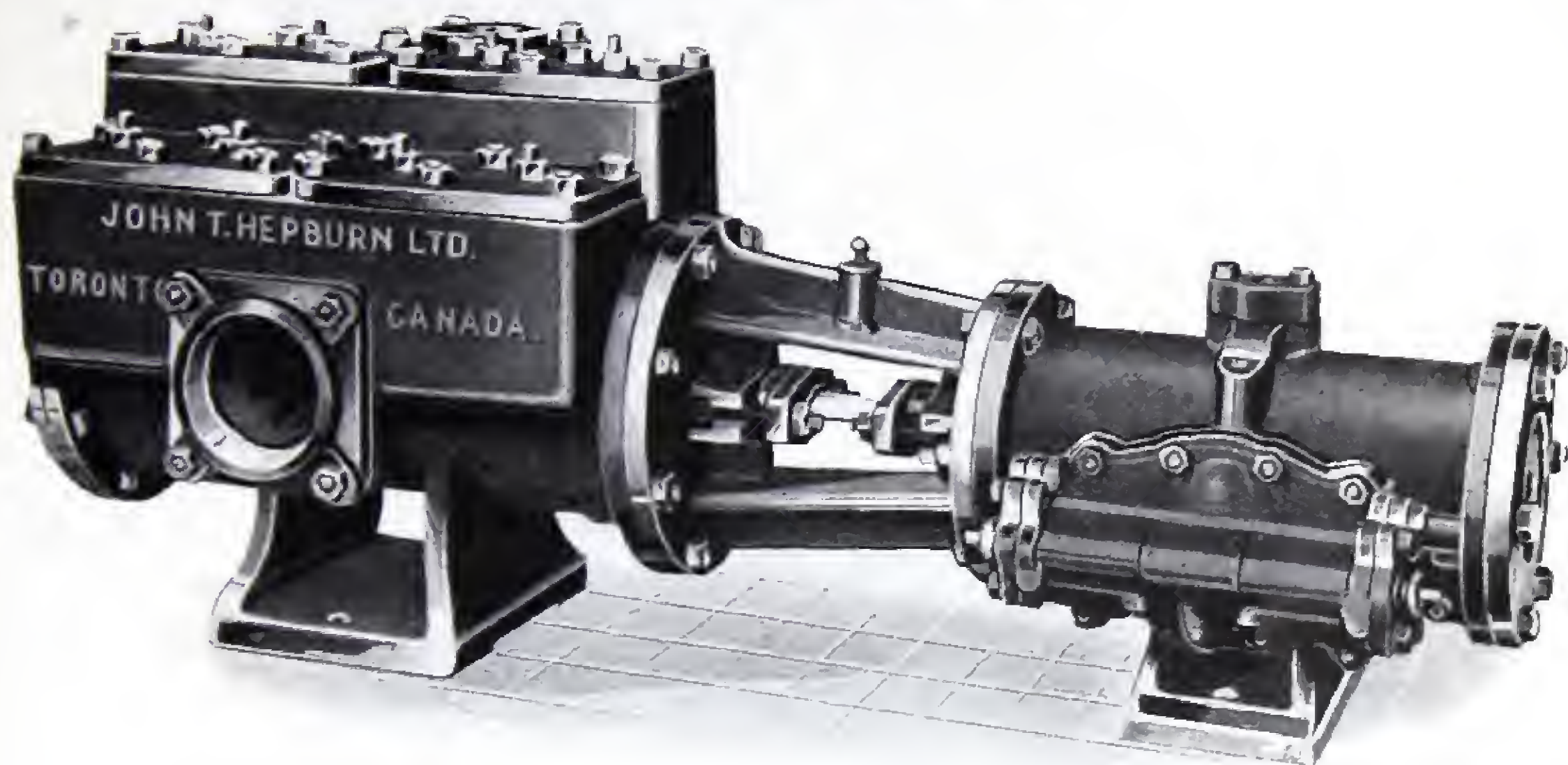


Fig. 772

Steam Cylinder	Water Cylinder	Stroke	Cap. Imp. Galls. per Stroke	PIPE SIZES				Floor Space
				Steam	Exhaust	Suction	Delivery	
4¼	3	9	.205	½	¾	2	1½	14x42
5	4	9	.36	¾	1	2	1½	14x43
5	4	12	.487	¾	1	2½	2	14x54
6½	4	12	.487	¾	1	2½	2	14x54
6½	5	12	.762	¾	1	2½	2½	16x54
6½	6	12	1.1	¾	1	2½	2½	19x56
8	5	12	.762	1	1¼	2½	2½	18x56
8	6	12	1.1	1	1¼	2½	2½	20x56
8	7	12	1.493	1	1¼	3	2½	20x56
9½	6	12	1.1	1¼	1½	2½	2½	22x58
9½	7	12	1.493	1¼	1½	3	2½	22x58
9½	8	12	1.95	1¼	1½	4	3	24x60
9½	9	12	2.466	1¼	1½	4	3	24x64
11	7	12	1.493	1½	2	3	2½	26x60
11	8	12	1.95	1½	2	4	3	26x64
11	9	12	2.466	1½	2	4	3	26x66
11	10	12	3.	1½	2	5	4	28x68
12½	8	12	1.95	1½	2	4	3	27x66
12½	9	12	2.466	1½	2	4	3	27x66
12½	10	12	3.	1½	2	5	4	28x68

Prices on Request.

TAYLOR-FORBES COMPANY, LIMITED, GUELPH, ONT.

HEPBURN AUTOMATIC DUPLEX FEED PUMP AND RECEIVER

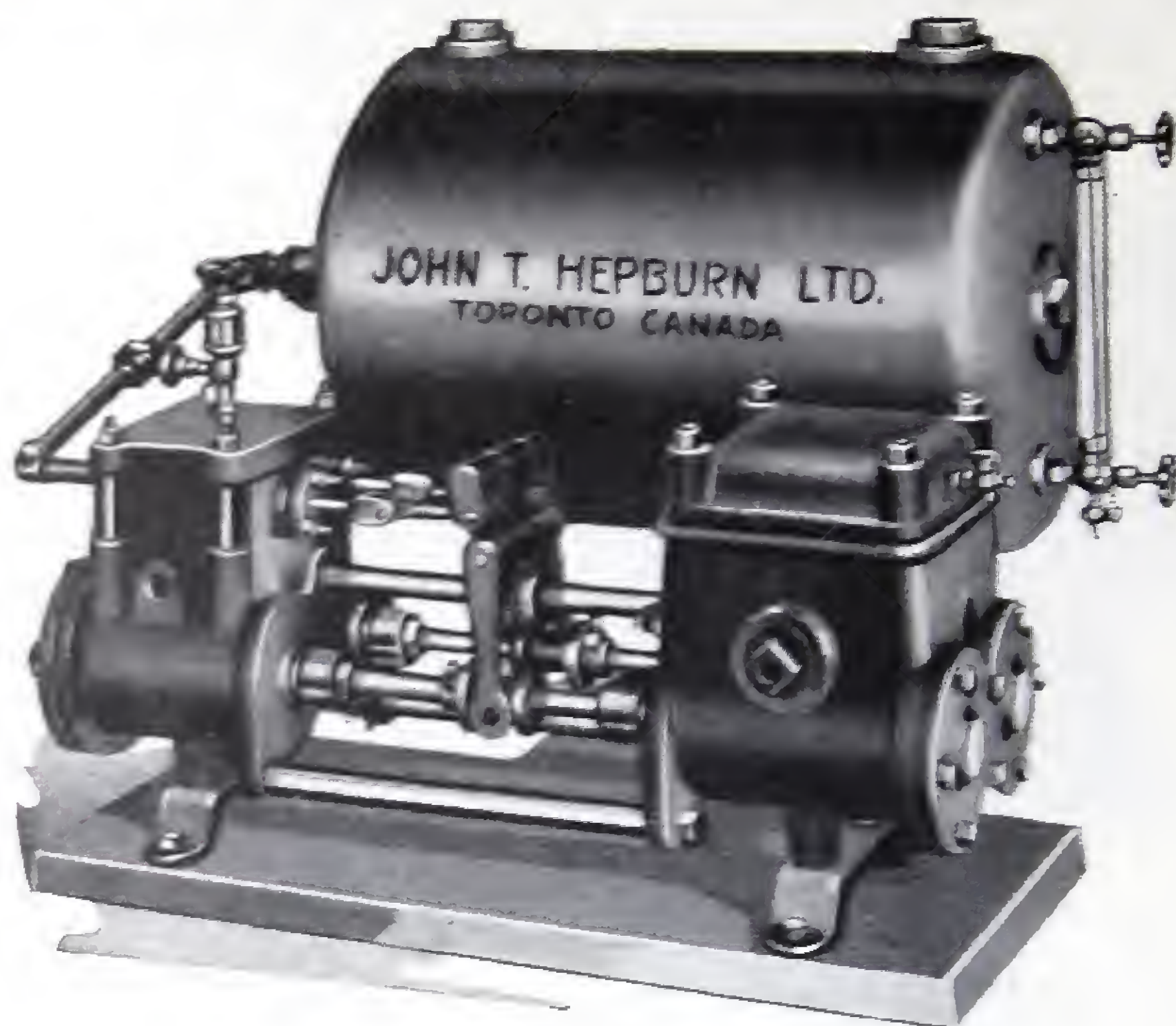
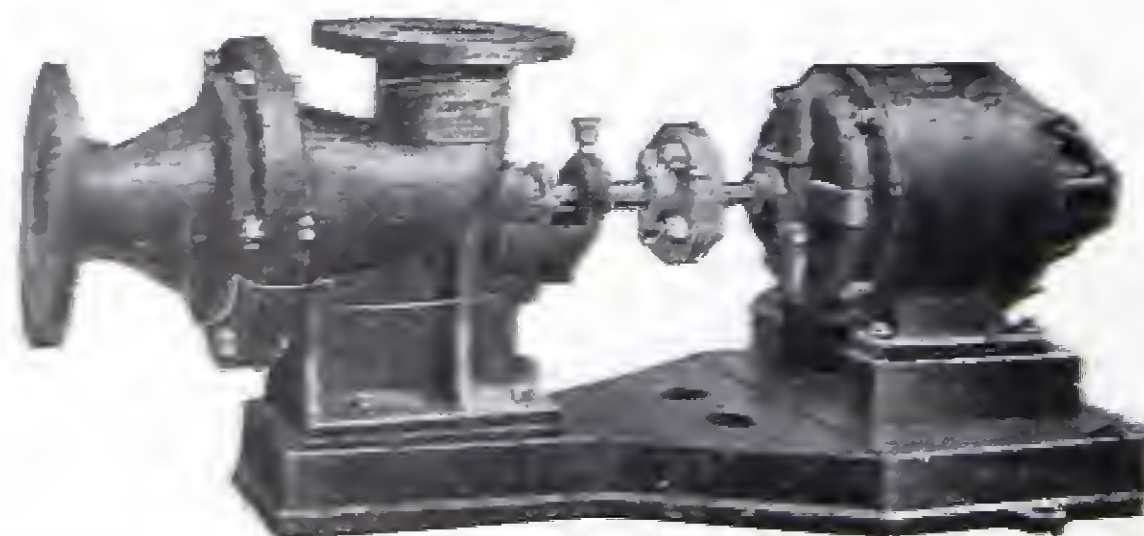


Fig. 773

Steam Cylinder	Water Cylinder	Stroke	Price Standard Pump	Price Fitted Receiver Pump	PIPE SIZES				Will Drain Square feet of Radiation	Boiler H.P. Pump will Feed
					Steam	Exhaust	Pump Delivery	Receiver Inlets		
3	2	3			$1\frac{1}{2}$	$\frac{3}{4}$	$1\frac{1}{4}$	2- $1\frac{1}{2}$	11000	50
4 $1\frac{1}{4}$	2 $\frac{3}{4}$	4			$\frac{3}{4}$	1	$1\frac{1}{2}$	2-2	22000	100
5 $1\frac{1}{4}$	3 $1\frac{1}{2}$	5			1	$1\frac{1}{4}$	2	2-2	39000	200
5 $1\frac{1}{4}$	3 $1\frac{1}{2}$	6			1	$1\frac{1}{4}$	2	2-2	40000	250
6	4	6			1	$1\frac{1}{4}$	2 $\frac{1}{2}$	2-2 $\frac{1}{2}$	60000	450
6	4	.			1	$1\frac{1}{4}$	2 $\frac{1}{2}$	2-2 $\frac{1}{2}$	65000	500

This pump can also be supplied non Automatic and without Receiver if Desired.

ATLAS CIRCULATING PUMPS FOR HOT WATER HEATING



Prices Quoted on Request.

Fig. 774

PENBERTHY AUTOMATIC INJECTOR

STYLE LEFT AND BACK

TO START

Open full the globe valve in water supply first, and then globe valve in steam pipe. If water issues from overflow, throttle the water supply valve until discharge stops.



Fig. 775

TO STOP

Close the steam valve. The water valve need not be closed unless the Injector is used as a non-lifter, or lift is considerable.

SUCTION LEFT—OVERFLOW FRONT—DISCHARGE BACK

Order by Size No.	Price	Pipe Connections all round		Capacity per Hour 1 to 3 Feet Lift. 60 to 85 Pounds Steam Pressure		Nominal Horse-Power	
		Inches	Millimeters	Maximum Gallons	Minimum Gallons		
O	15.00	1/4	6	60	35	3 to	6
OO	16.00	3/8	10	80	45	4 to	8
A	18.00	1/2	13	135	70	8 to	16
AA	20.00	1/2	13	180	100	12 to	22
B	25.00	3/4	19	260	140	17 to	32
BB	30.00	3/4	19	360	180	20 to	45
C	40.00	1	25	475	250	40 to	65
CC	45.00	1	25	600	325	45 to	80
D	55.00	1 1/4	32	800	425	50 to	100
DD	60.00	1 1/4	32	1000	525	75 to	135
E	75.00	1 1/2	38	1400	740	100 to	180
EE	90.00	1 1/2	38	1900	850	115 to	255
F	110.00	2	50	2400	1275	160 to	320
FF	125.00	2	50	3000	1600	200 to	400
G	150.00	2 1/2	64	3600	1875	300 to	500
GG	200.00	2 1/2	64	4200	2150	375 to	600

The capacity can be cut down about one-half by simply throttling the water supply Valve.

Where Injectors are ordered by size of pipe connections, we will always send the size having the largest capacity.

PENBERTHY AUTOMATIC INJECTOR

FOR HIGH PRESSURE AND HOT WATER



Fig. 776

With Relief Valve at Bottom for Starting
on Low Pressure

Order By Size No.	Price	Pipe Connections All Round inches	Capacity per Hour at 180 lbs. Steam Pressure Lift- ing water Having a Temperature of 74° Three Feet	Nominal Horse Power
			Gallons	
325-O	15.00	$\frac{1}{4}$	55	3 to 6
326-OO	16.00	$\frac{3}{8}$	76	4 to 8
328-A.A.	20.00	$\frac{1}{2}$	170	12 to 22
330-B.B.	30.00	$\frac{3}{4}$	350	20 to 45
332-C.C.	45.00	1	570	45 to 80
334-D.D.	60.00	$1\frac{1}{4}$	940	75 to 135
336-E.E.	90.00	$1\frac{1}{2}$	1800	115 to 255
338-F.F.	125.00	2	2850	200 to 400
340-G.G.	200.00	$2\frac{1}{2}$	4000	375 to 600

PENBERTHY AUTO-POSITIVE INJECTOR



Fig. 777

Automatic and Restarting, for High Pressures and Hot Water Supply

While a large majority of boilers carry less than 150 pounds pressure, the usual high working pressure of the ordinary automatic Injector, there is an increased demand for an Injector operating between 150 and 200 pounds pressure. There is also a demand for an Injector that will handle a water supply that has become heated by use of the syphon (or Ejector) and in other ways, and is consequently too hot for Injectors of the usual automatic type. We offer to the public the "AUTO-POSITIVE," especially designed to meet these requirements.

This Injector differs materially from any other automatic Injector ever before placed on the market, being constructed on new principles, HAVING BUT FIVE WORKING PARTS, and combining the features of a positive with those of an automatic Injector. By this combination it is enabled to handle much hotter water and work on higher steam pressures than any other automatic Injector.

Order By Size No	Price	Pipe Connections Inches			Capacity per Hour 3 Feet Lift 75 to 125 lbs. Steam Pressure.		Horse Power Allowing 7½ to 8 Gals per H. P. Per Hour	
		Steam	Suction	Delivery	Gallons			
					Max.	Min.		
112	18.00	3⁄8	3⁄8	3⁄8	120	40	5 to 15	
113	20.00	1⁄2	1⁄2	1⁄2	200	60	7 to 25	
115	30.00	3⁄4	3⁄4	3⁄4	400	130	16 to 50	
117	45.00	1	1	1	675	225	28 to 85	
119	60.00	1 1⁄4	1 1⁄4	1 1⁄4	1125	375	47 to 145	
121	90.00	1 1⁄2	1 1⁄2	1 1⁄2	2000	700	87 to 265	
123	125.00	2	2	2	3000	1000	125 to 400	
125	200.00	2 1⁄2	2 1⁄2	2 1⁄2	4200	1500	200 to 600	

PENBERTHY EJECTOR

SYPHON OR STEAM JET PUMP



Lifts 22 to 25 Feet. Elevates 50 to 75 Feet
"XL-96"

Fig. 778

Order by Size	Price All Brass	Price Iron Body Brass Jets	PIPE CONNECTIONS				CAPACITY PER HOUR			
			Steam		Suction and Delivery		40 to 65 Lbs. Steam 3 ft. Lift Gallons	20 to 40 Lbs., or 65 to 100 Lbs. Gallons	40 to 65 Lbs. 50 feet Elevation Gallons	40 to 65 Lbs. 25 feet Elevation Gallons
			Ins.	Milli- meters	Ins.	Milli- meters				
1	8.00	Sizes 1 to	$\frac{3}{8}$	10	$\frac{1}{2}$	13	240	235	120	180
2	10.00	4 made in	$\frac{1}{2}$	13	$\frac{3}{4}$	19	500	450	250	375
3	15.00	All Brass	$\frac{3}{4}$	19	1	25	840	700	420	625
4	20.00	only	1	25	1 $\frac{1}{4}$	32	1,350	1,300	650	950
5	25.00	20.00	1	25	1 $\frac{1}{2}$	38	1,950	1,850	975	1,450
6	35.00	27.50	1 $\frac{1}{4}$	32	2	50	3,500	3,000	1,750	2,600
7*	50.00	40.00	1 $\frac{1}{2}$	38	2 $\frac{1}{2}$	64	5,700	4,350	2,500	3,750
8*	70.00	50.00	2	50	3	75	9,500	8,160	4,750	7,200
9*	105.00	70.00	2	50	3 $\frac{1}{2}$	90	13,600	12,400	6,800	10,200
10*	145.00	95.00	2 $\frac{1}{2}$	64	4	100	18,400	17,100	9,200	13,800

Sizes 5 and 6 will be furnished of brass unless ordered of iron.

*Unless ordered in brass, sizes 7 to 9, inclusive, will be shipped with iron body brass jets and steam connection, and size 10, all iron except jets. The jets in all sizes are made of a special hard metal, insuring good wearing qualities.

When a 1-inch Ejector is ordered, we send No. 3, not No. 4, or 5, etc.

Strainers are not included in price of Ejectors.

PENBERTHY HYDRAULIC EJECTOR

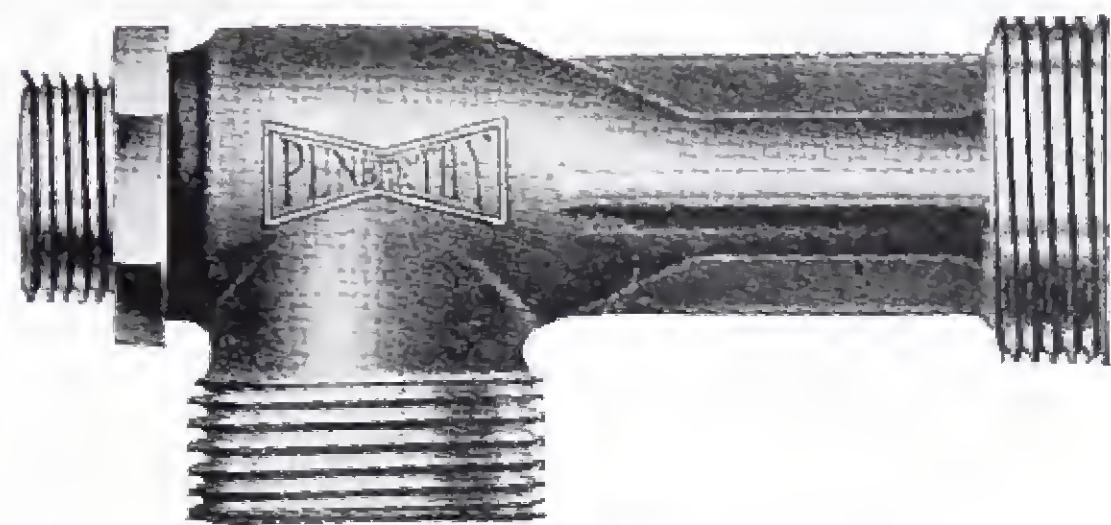


Fig. 779

The demand for an Ejector operated by water as a motive power, has necessitated the development of the Ejector shown in the above cut. It is designed to meet conditions where the water pressure operating the same is from 15 to 200 pounds and the elevation or discharge does not exceed 50 feet. All details are proportioned to give the highest efficiency under these conditions, with a minimum operating water consumption.

Water consumption varies according to pressure, capacity and elevation. The water pressure controls the elevation, but it is safe to figure four pounds of pressure to every foot of elevation. The table below shows capacities under different pressures.

Size.....Inches	62	63	64	65	66	67	68
Operating.....	$\frac{3}{8}$ "	$\frac{1}{2}$ "	$\frac{3}{4}$ "	1"	1 $\frac{1}{4}$ "	1 $\frac{1}{2}$ "	2"
Suction.....	$\frac{3}{4}$ "	1"	1 $\frac{1}{4}$ "	1 $\frac{1}{2}$ "	2"	2 $\frac{1}{2}$ "	3"
Delivery.....	$\frac{3}{4}$ "	1"	1 $\frac{1}{4}$ "	1 $\frac{1}{2}$ "	2"	2 $\frac{1}{2}$ "	3"
Length.....	5"	6 $\frac{3}{4}$ "	8"	9"	10 $\frac{1}{2}$ "	11 $\frac{1}{2}$ "	13 $\frac{1}{4}$ "
Capacity in Gallons per Hour	40 lbs. pressure.....	500	900	1500	2100	3000	4200
	60-80 lbs. pressure.....	750	1100	2000	3400	4500	6000
Price.....	\$10.00	\$15.00	\$20.00	\$25.00	\$35.00	\$50.00	\$70.00

Capacities given above are when Ejector is working against a head of 10 feet, and include the operating water.



BLOW-OFF TANKS

CAST IRON

Fig. 780

The purpose of a Blow-off Tank is to provide a place in which the hot water blown out of a Boiler may cool down before it is discharged into the sewer. Its use is obligatory in places where the sanitary code prohibits the discharge of hot water and steam directly into the sewer.

DRIP TANKS

Tanks as illustrated above are also used as Drip Tanks to receive condensation water from Heating Systems, Engines, Separators, etc., and allow it to cool off sufficiently to permit it to be safely discharged into the sewer.

In some cases the Drip Tank serves as a reservoir or hot well in which the hot water from steam apparatus collects and from which it is returned to the Boiler by a pump. When used for this purpose they can be furnished with tappings in the top as required. State size, number and location of tappings when ordering.

These Tanks are made of heavy cast iron and a manhole of ample size with cover is provided in the top. A tapping for vent pipe is also provided, as well as a tapped opening at the bottom.

Diameter.....Inches	16	16	16	18	18	18	20	20	20	24
Depth.....Inches	16	20	24	18	24	30	24	30	36	30
Fig. 780.....Each	36.00	38.00	42.00	39.00	45.00	51.00	50.00	58.00	63.00	78.00
Weight.....Lbs.	190	220	250	225	275	325	320	380	425	475
Diameter.....Inches	24	24	24	24	24	26	26	26	26	26
Depth.....Inches	36	42	48	54	60	30	36	42	48	54
Fig. 780.....Each	86.00	94.00	102.00	110.00	120.00	88.00	98.00	110.00	120.00	132.00
Weight.....Lbs.	550	600	650	700	750	575	650	700	775	850
Diameter.....Inches	30	30	30	30	30	30	36	36	36	36
Depth.....Inches	30	36	42	48	54	60	36	42	48	54
Fig. 780.....Each	96.00	104.00	116.00	124.00	134.00	144.00	126.00	140.00	154.00	168.00
Weight.....Lbs.	600	650	700	750	850	1075	900	1000	1100	1200
Diameter.....Inches	36	42	42	42	42	48	48	48	48	48
Depth.....Inches	60	42	48	54	60	48	54	60	66	72
Fig. 780.....Each	182.00	168.00	182.00	196.00	210.00	204.00	220.00	238.00	256.00	276.00
Weight.....Lbs.	1400	1100	1200	1300	1400	1700	1850	2000	2200	2500

Blow-Off Tanks can be supplied square or round. Prices on Application.

AUTOMATIC CELLAR DRAINERS



Fig. 781
AUTOMATIC TYPE



Fig. 782
NON-AUTOMATIC TYPE

Size No.	List Automatic	List, Non- Automatic	Supply Pipe	Discharge Pipe	Gallons per Hour 20 to 80 lbs Pres. 3 to 18 ft Elevation	
					Min.	Max.
1.....	\$25.00	\$15.00	1/2"	1 "	115	650
2.....	40.00	25.00	3/4"	1 1/4"	180	1050
3.....	55.00	35.00	1 "	1 1/2"	310	1650
4.....	80.00	50.00	1 1/4"	2 "	450	2400
5.....	110.00	70.00	1 1/2"	2 1/2"	600	3200

N. B. Capacities given above represent actual gallons of water removed from pit, and not the combined discharge of operating and drainage water as given in most tables.

TAYLOR-FORBES STRAINERS

Working Pressure 250 Pounds.



Fig. 783

Sizes $1\frac{1}{2}$ " to 2" inclusive are made of Bronze with screwed ends.

Sizes $2\frac{1}{2}$ " to 6" inclusive are Iron Body with Flanged ends, but we can furnish to order any size screwed or flanged.

Sizes larger than 3-inch have bolted cover.

Our strainers are designed for use on steam or air lines to prevent sediment, scale or particles of foreign material from passing into Reducing Valve or other Regulator installed in pipe line. Where trouble arises caused by scale, etc., it is necessary to remove regulator, take apart and clean the operating parts. This causes considerable loss of time, annoyance and expensive shut downs.

The Strainer is so constructed that it does not reduce the volume of steam or air passing through it. It is easily cleaned without removing from the pipe line.

To clean strainer unscrew cap at the bottom, which permits the cylindrical screen being removed and readily cleaned.

The strainer should always be installed with the cap down.

Size	Inches	$1\frac{1}{2}$	$3\frac{1}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2
Fig. 783—Bronze, Screwed	Each	3.80	3.80	5.20	7.20	10.00	15.00

Size	Inches	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4	5	6
Fig. 783—Iron Body, Flanged	Each	28.00	36.00	45.00	50.00	72.00	94.00

CISTERN PUMPS

OPEN SPOUT

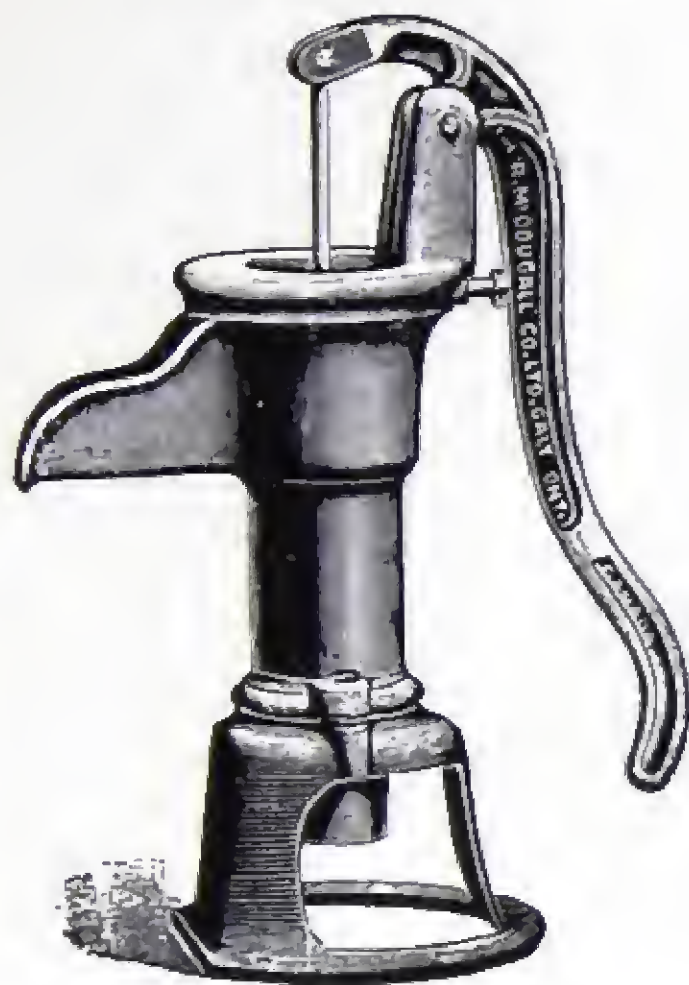


Fig. 784

CLOSED SPOUT



Fig. 785

FOR LEAD OR
IRON PIPE

Number.....	1	2	3	4
Diameter of Cylinder.....Inches	2½	3	3½	4
Fitted for Pipe.....Inches	1	1¼	1¼ or 1½	1½

CISTERN PUMPS

“GILT EDGE”

BRASS
NICKEL-PLATED
CYLINDERS



Fig. 786

Size of Cylinder.....	3
Fitted for Pipe.....Inches	1

Prices on Application.

CISTERN PUMPS

ON BRACKET BASE

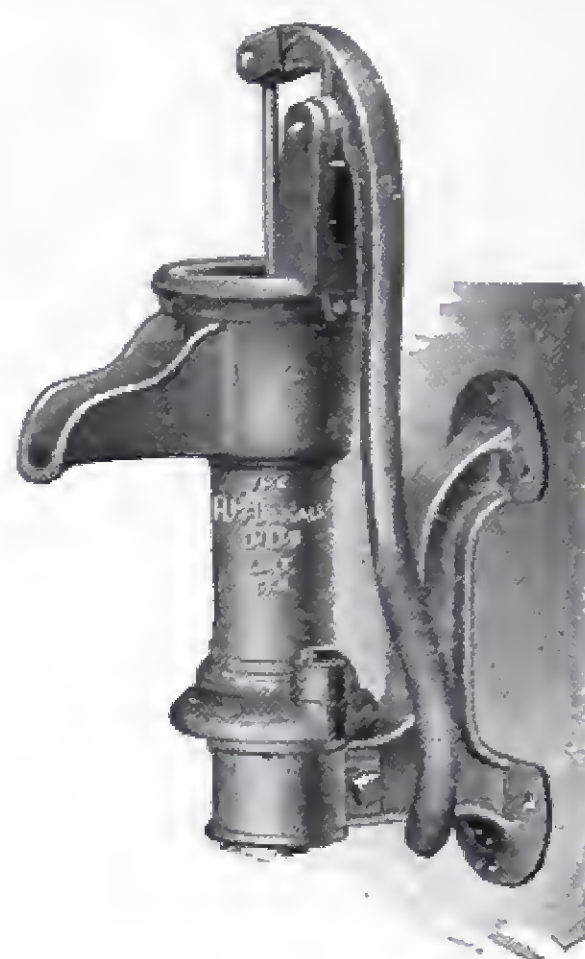


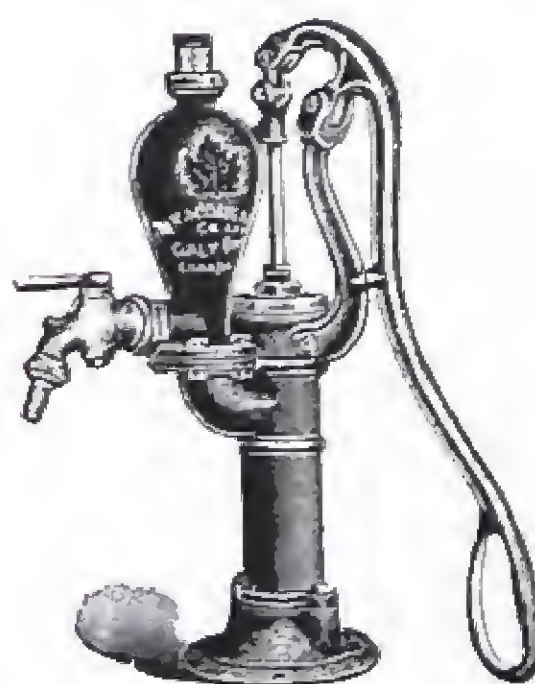
Fig. 787

Any Pump shown on page 243 can be fitted in this manner when desired at a slight extra charge.

FORCE PUMPS

WITH AIR CHAMBER

COCK ON
SIDE OUTLET



ALSO SUPPLIED
MOUNTED ON
PLANK

Fig. 788

Number.....	1	2
Diameter of Cylinder.....Inches	2½	3
Fitted for Pipe.....Inches	1¼	1¼

Prices on Application.

OSCILLATING FORCE PUMPS
DOUBLE ACTING

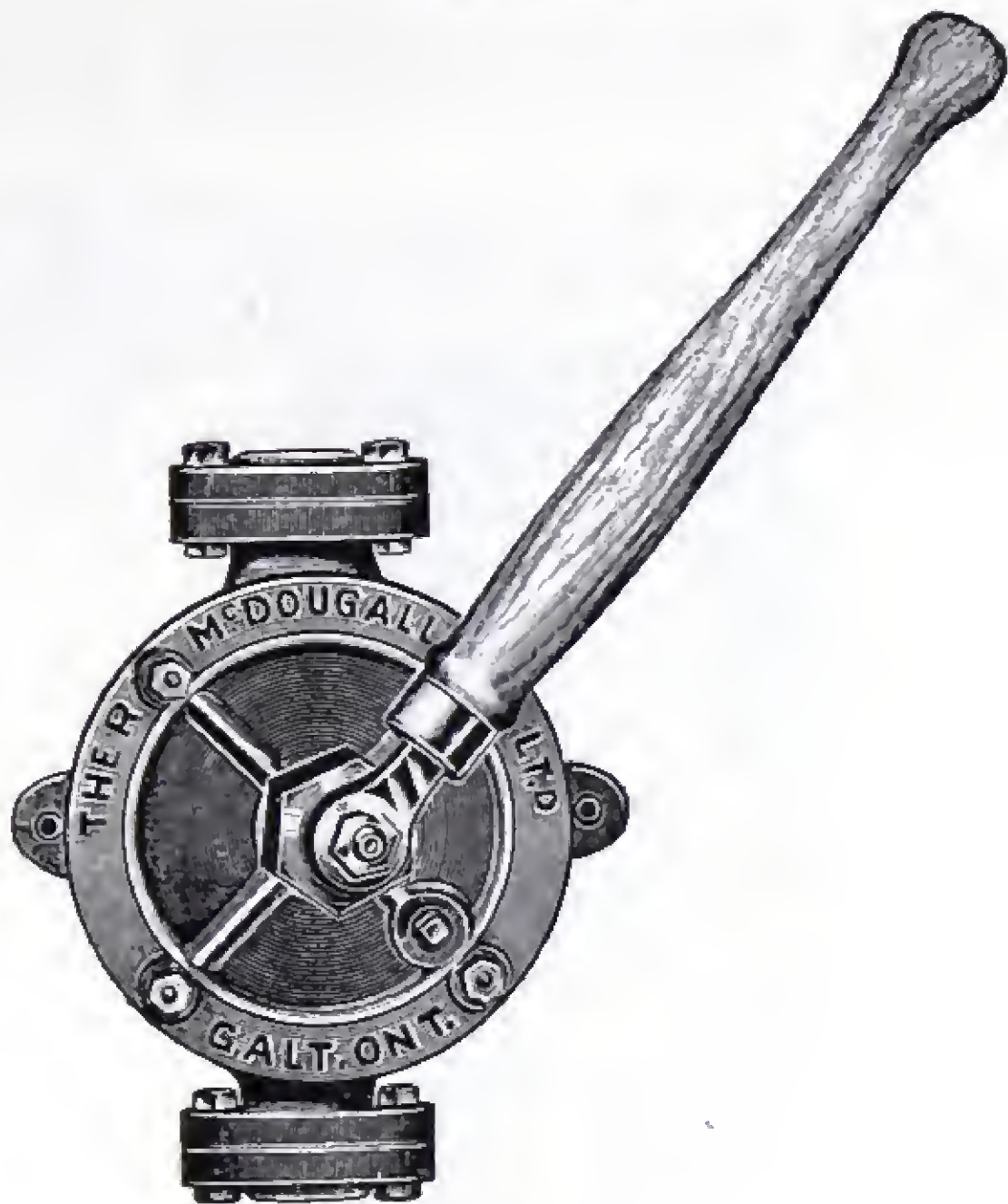


Fig. 789

Supplied in Iron with Brass Piston, Valves and Valve Box or all Brass

Number.....	2	3	4	5
Fitted for Pipe.....Inches	1	1 ¼	1 ¼	1 ½



Fig. 790

HORIZONTAL FORCE PUMPS
DOUBLE ACTING—WITH COG GEAR ACTION

Brass lined Cylinder, brass valve seats, Rubber faced Valves and brass covered Piston Rod.

Diameter of Cylinder.....Inches	3
Suction and Discharge Pipes.....Inches	1 ¼

Prices on Application.

ELECTRIC HOUSE SERVICE PUMPS

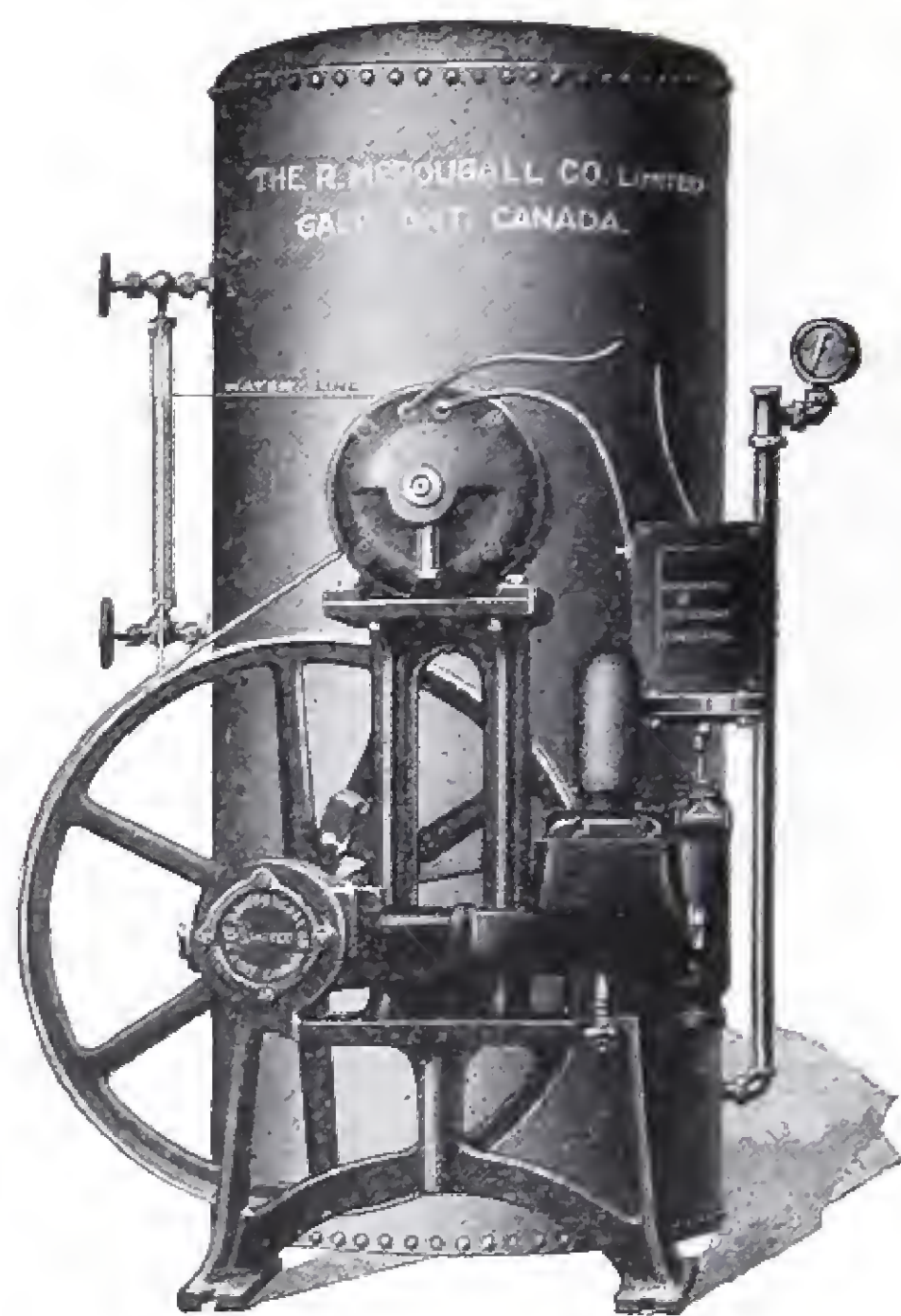


Fig. 791

The illustration shows the Pump complete with all fittings necessary for a Hydro-Pneumatic House System. Black or galvanized Tanks can be supplied.

Fittings include Water Glass and mountings, Pressure Gauge, Stop Cock for discharge between Pump and Tank, Stop Cock for discharge from Tank and Bibb Cock for draining Tanks. These fittings are supplied only when complete outfits, including Tanks, are furnished.

Prices on Application.

TUBE CLEANERS
ENGINEER'S FAVORITE

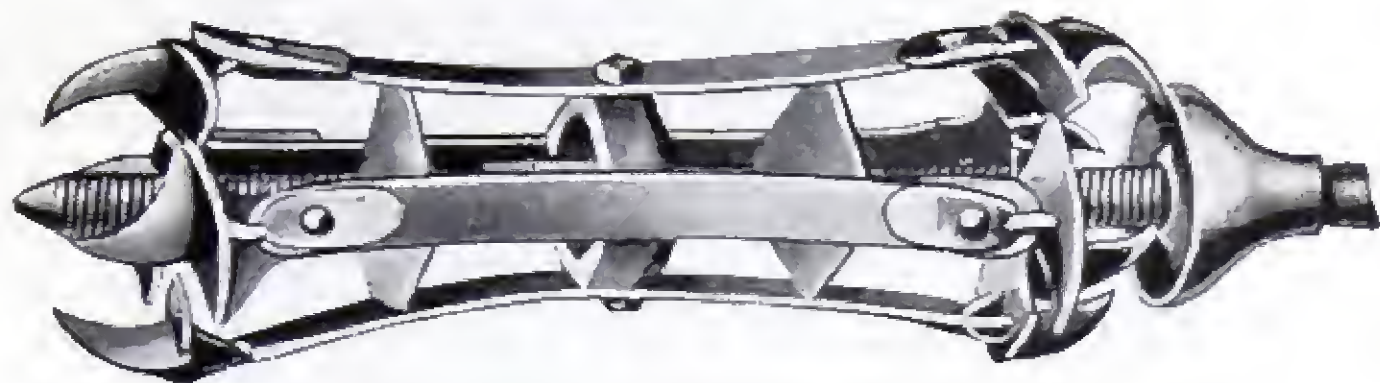


Fig. 792

This well-known Cleaner is very effective.

Size.....Inches	1¾	2	2¼	2½	2¾	3	3¼	3½	4
Fig 792.....Each	2.00	2.00	2.25	2.50	2.75	3.00	3.25	3.50	4.00

WIRE TUBE BRUSH

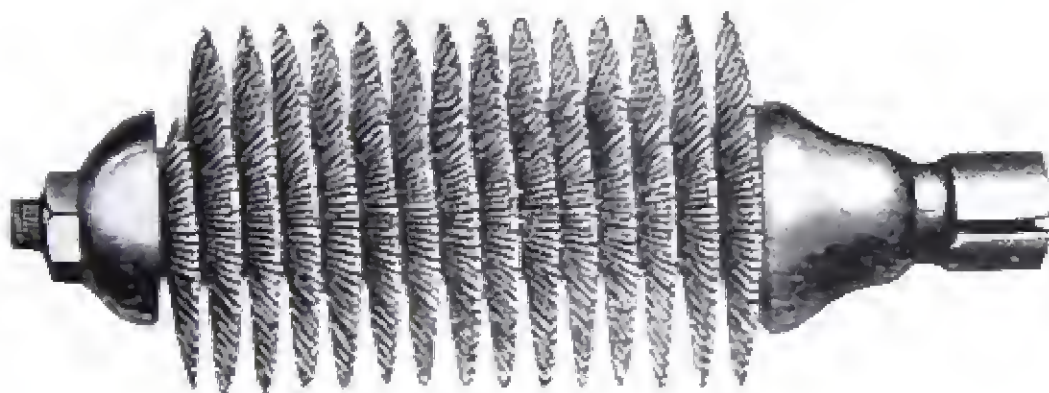


Fig. 793

Size.....Inches	1½	1¾	2	2¼	2½	2¾	3	3¼	3½	4	4½	5	5½	6
Fig 793.....Each	2.00	2.00	2.00	2.25	2.50	2.75	3.00	3.25	3.50	4.00	4.50	5.00	5.50	6.00

WIRE BOILER BRUSHES

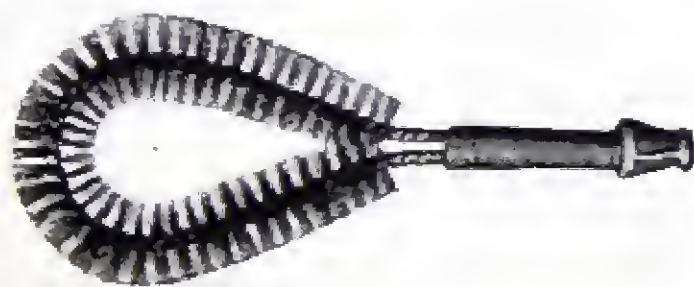


Fig. 794



Fig. 795

Fig 794.....Each	1.10
Fig 795.....Each	2.30

THE "TURBINA" TUBE SCRAPER

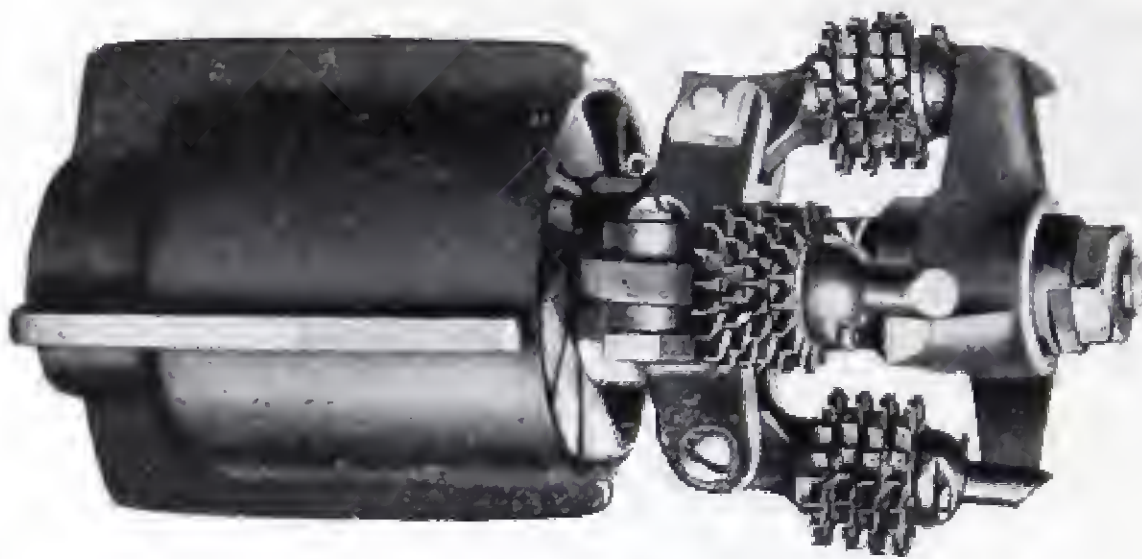


Fig. 796

This machine is attached to the end of a strong wire wound hose and driven by water pressure of 100 to 150 pounds. The turbine revolves with great speed, throwing the cutters against the scale by centrifugal force, with sufficient power to loosen and pulverize it, the flow of the water carrying it away.

Size.....Inches	2½	3	3½	4
Fig 796—Without Hose.....Each	65.00	65.00	75.00	75.00

"COMBINATION" TUBE SCRAPER AND BRUSH

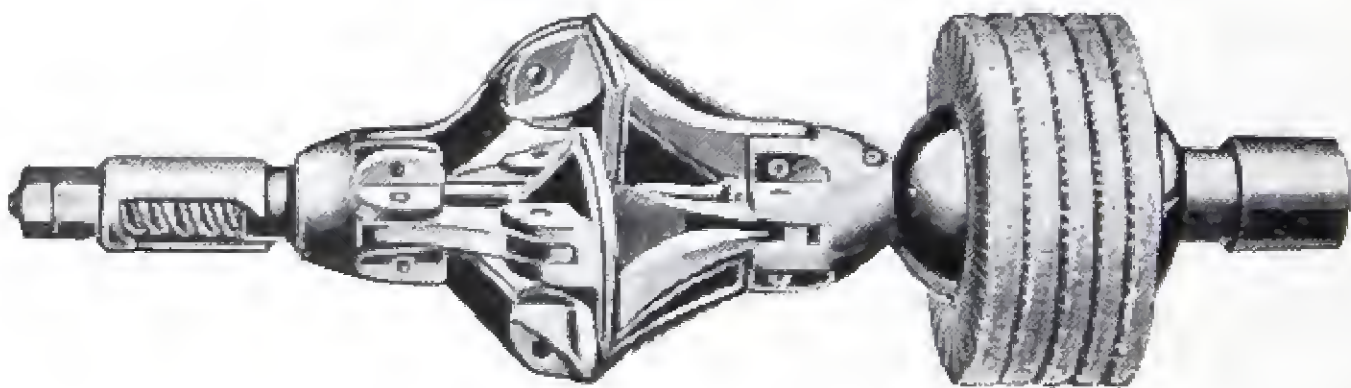


Fig. 797

This tool is a scraper and brush combined. Two tools in one. The wire brush can be renewed if necessary.

Size.....Inches	1½	1¾	2	2¼	2½	2¾	3	3¼	3½	4
Fig 797.....Each	2.50	2.50	2.50	2.85	3.15	3.45	3.75	4.10	4.40	5.00

BABBITT ADJUSTABLE SPROCKET RIMS
WITH CHAIN GUIDE



Fig. 798
FRONT VIEW

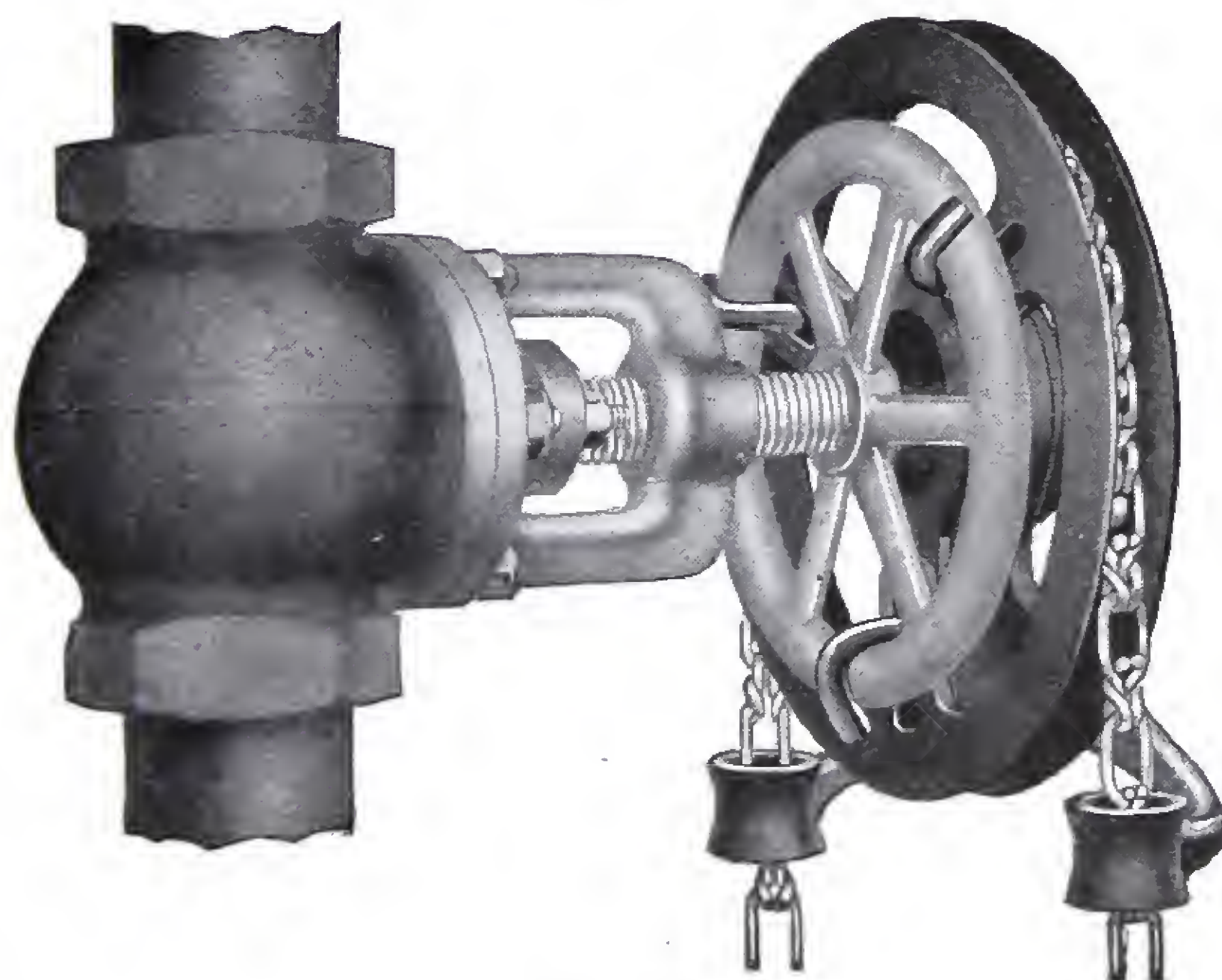


Fig. 799
REAR VIEW

For Price List and Dimensions, see page 250.

BABBITT ADJUSTABLE SPROCKET RIMS

WITH CHAIN GUIDE

PRICE LIST—Subject to Discount

Size No	Rim Diameter "O D" Ins	Minimum and Maximum "O D" of Valve Wheels Rim will adjust to— Min'm. Max'm.	Rim with Chain Guide List each	Rust Proof Chain List per Foot
0.....	4	2 " to 3½"	\$2.40	\$.10½
1.....	5½	3½" to 5 "	4.00	.14
1½.....	7	5½" to 6½"	5.20	.14
2.....	9	7 " to 8½"	6.40	.14
2½.....	12	8 " to 11½"	8.80	.22
3.....	15	11 " to 14½"	10.80	.22
3½.....	19	15 " to 18½"	15.20	.22
4.....	22	19 " to 21½"	20.00	.37
4½.....	26	22 " to 25½"	28.00	.37
5.....	30	26 " to 30 "	32.00	.37

List Price includes necessary Hook Bolts to attach Rim to Wheel of Valve.

When ordering, give the diameter of the Valve Wheel to be fitted and number of feet of Chain required.

TABLE OF CHAIN MEASUREMENTS

To ascertain number of feet of Chain required to operate Rim, measure from centre of Valve Wheel the drop required; double that amount and add for each Rim size according to Number of Rim the amount in feet and inches given in table below.

No 0 add 6"
 No 1 " 9"
 No 1½ " 1 ft. 0"
 No. 2 " 1 ft. 6"
 No. 2½ " 2 ft. 0"

No 3 add 2 ft 6"
 No 3½ " 3 ft 0"
 No. 4 " 3 ft. 6"
 No. 4½ " 4 ft. 0"
 No. 5 " 5 ft. 0"

These amounts allow for loss in circles at top of wheel and bottom of loop.

Example:—Customer orders a No. 4 Rim—with 15 ft. drop.

Answer:—15 ft. x 2=30 ft.+3 ft. 6"=33 ft. 6" of Chain required.

TAYLOR-FORBES DOMESTIC HEATERS

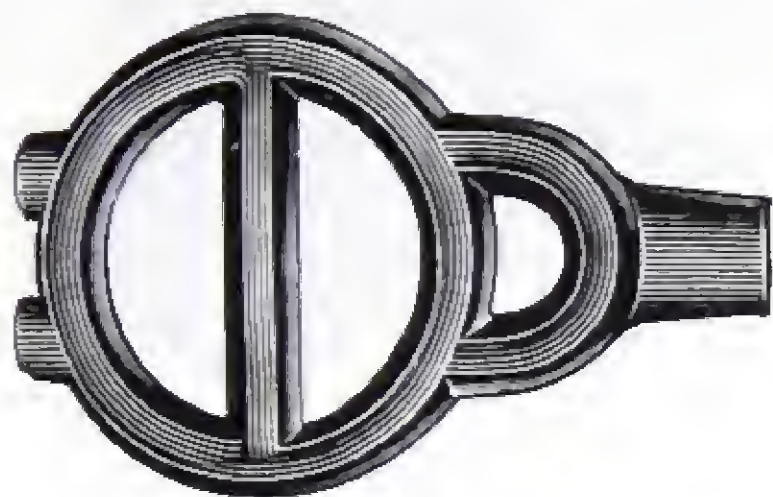


Fig. 7

Size of Sovereign Boiler	0 to 3	4 to 6	6½ to 8
Tapped for.....Inches	1	1	1
Length.....Inches	10	18	26½
Diameter.....Inches	9½	10¾	10¾
Centre to Centre of Tappings.....Inches	3½	3½	3½
Fig. 7.....Each	2.50	4.25	5.50



Fig. 648

Sizes of New Monarch Boilers.....	91	93	95
Tapped for.....Inches	1	1	1
Length.....Inches	9	12¾	14
Diameter.....Inches	4¾	5¼	6
Centre to Centre of Tappings.....Inches	5	5	5
Fig. 648.....Each	1.00	1.10	1.40

DOMESTIC HEATERS



Fig. 800

Diameter	Inches	12	15	18	21	24
Number		25	55	85	115	145
Height	Inches	4 $\frac{5}{8}$	5 $\frac{1}{2}$	6 $\frac{1}{2}$	6 $\frac{3}{4}$	7 $\frac{1}{4}$
Capacity for Inch Pipe, including Mains and Returns		300	400	500	600	750
Tapped for	Inches	1	1 $\frac{1}{2}$	1 $\frac{3}{4}$	2	2
Fig. 800	Each	5.75	9.00	12.00	14.80	27.75



Fig. 801

Diameter	Inches	12	15	18	21	24
Diameter of Top Section	Inches	12	15	18	21	24
Height	Inches	6 $\frac{5}{8}$	8	9	9 $\frac{1}{2}$	10
Capacity for Inch Pipe, including Mains and Returns		600	850	1000	1150	1300
Tapped for	Inches	1	1 $\frac{1}{2}$	1 $\frac{3}{4}$	2	2
Fig. 801	Each	10.75	18.50	25.50	39.25	59.50

DOMESTIC HEATERS



Fig. 802

Diameter.....Inches	9½	12	15	18	21	24
Number.....	10	20	50	80	110	140
Capacity for Inch Pipe, including Mains and Returns.....	200	300	450	550	650	750
Tapped for.....Inches	¾ or 1	1	1¼	1½	2	2
Capacity of Kitchen Boiler.....Gals.	30	40	60			
Fig. 802.....Each	4.00	5.25	9.50	13.75	19.80	31.25

HARDT HEAT GENERATORS
FOR HOT WATER HEATING SYSTEMS



NO MERCURY
NO SPRINGS

TAPPED 1 INCH

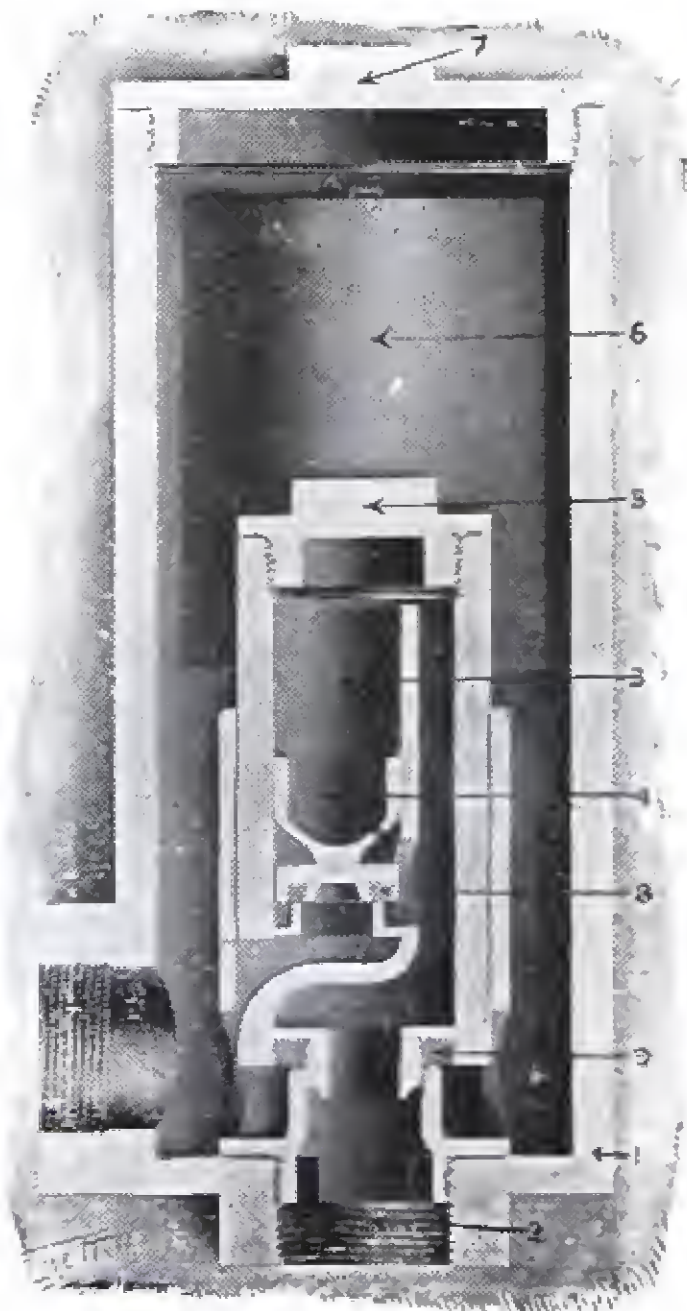


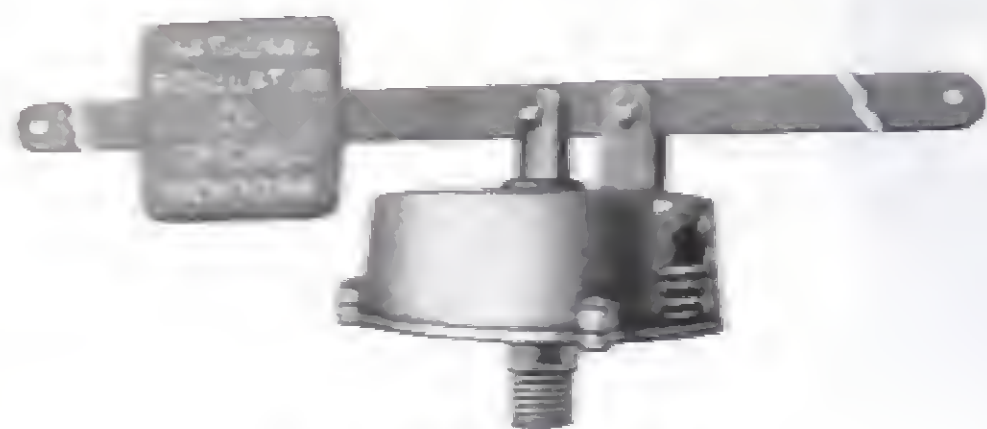
Fig. 156. Outside View

Fig. 157. Inside View

If the system is deficient in heating surface or the circulation is sluggish due to faulty piping the "Hardt" Generator will raise the temperature and quicken the circulation, thereby increasing the heating efficiency of the plant, at a very small cost.

List Price.....\$30.00

DAMPER REGULATORS



Type A Jr. 4"
For Low Pressure
Fig. 164

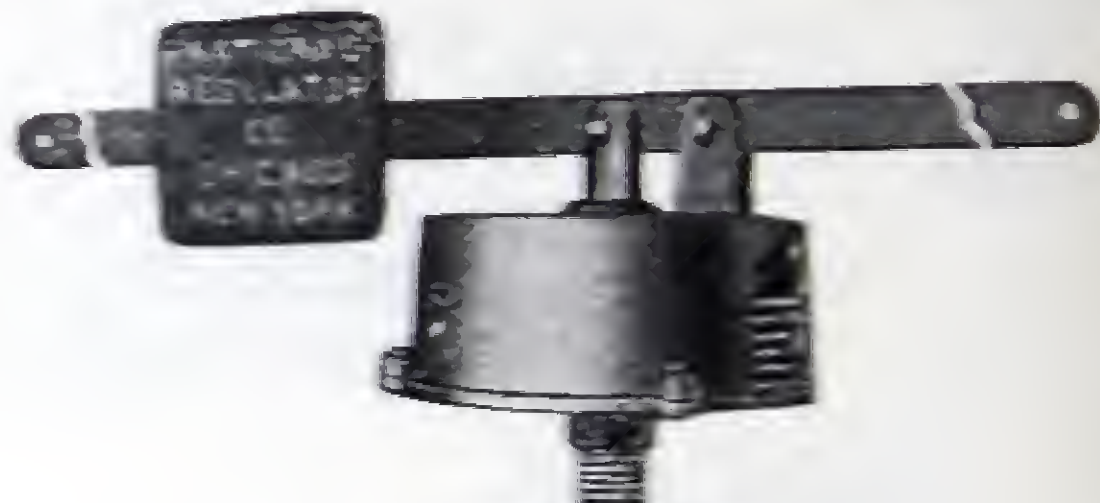
Equipped with weight, 2 ceiling pulleys, and 12 feet No. 0 plumbers' chain. Lever length 40". Connection $\frac{1}{2}$ ". Shipping weight 10 lbs.

For small house heating boilers with balanced dampers, requiring no more than 3" lift.

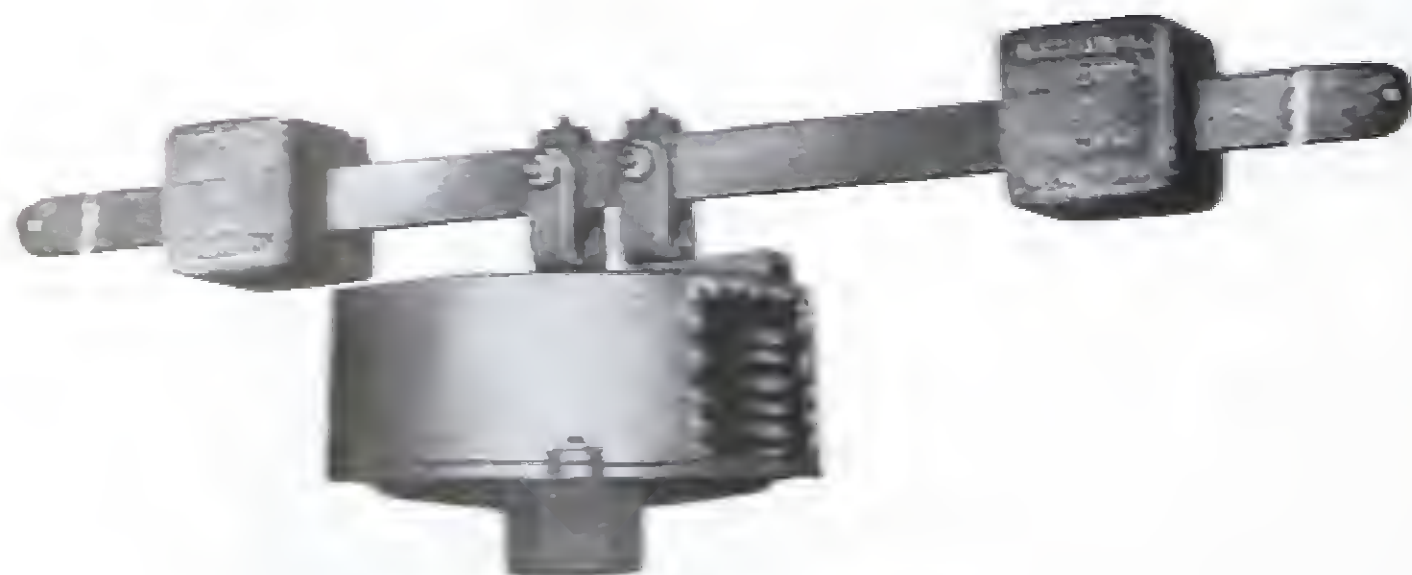
Especially adapted for small gas boilers.

Equipped with weight, 2 ceiling pulleys, and 12 feet No. 0 plumbers' chain. Lever length 40". Connection $\frac{1}{2}$ ". Shipping weight 15 lbs.

For medium size house heating boilers.



Type A 4"
For Low Pressure
Fig. 165



Type B C-7"
For Low Pressure or Vapor.
Fig. 166.

Equipped with weights, 2 ceiling pulleys, 12 feet No. 0 plumbers' chain and universal adjustment feature. Lever length 48". Connection 1". Shipping weight 35 lbs.

For medium and large size house heating boilers fired for pressure or vapor.

Prices on application.

TANK REGULATORS

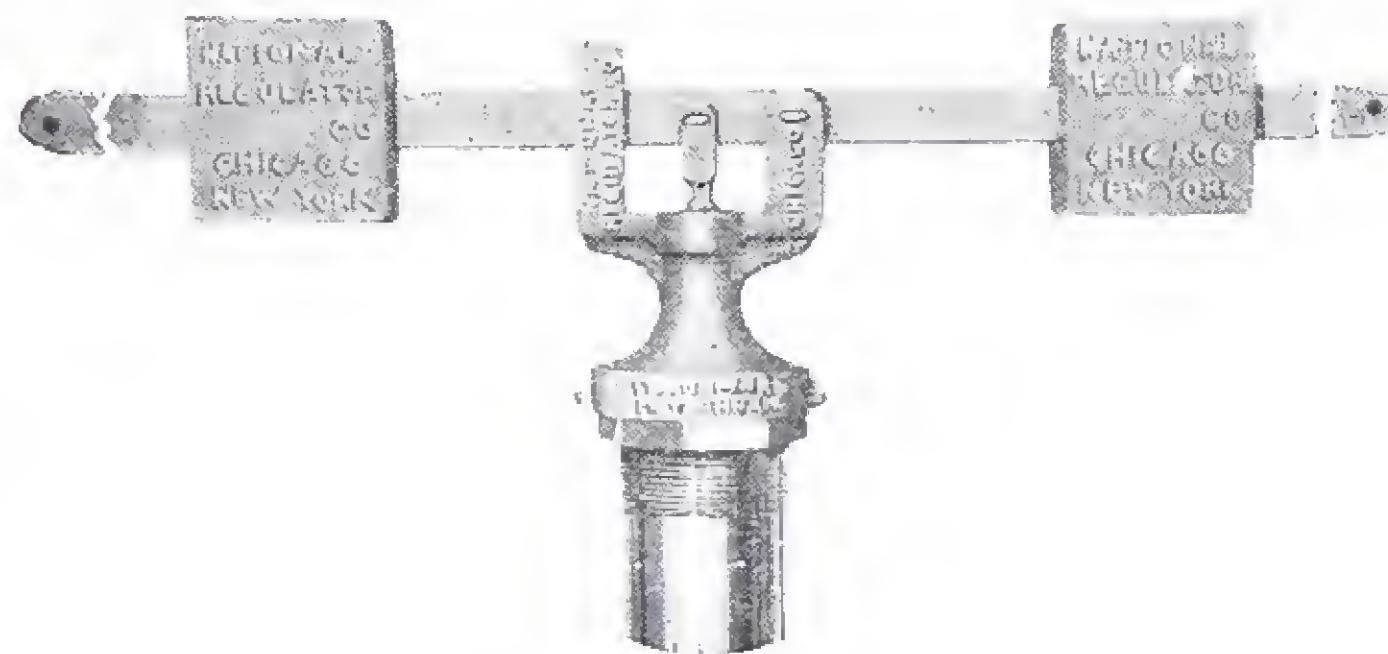


Fig. 135
TYPE F. 2 INCH
Price on Application.

NO. 1. TANK REGULATOR WITH DIAPHRAGM MOTOR FOR THE CONTROL OF A
LEVER VALVE OR COAL HEATER.

Price on Application

TANK REGULATORS WITH DIAPHRAGM VALVE FOR THE CONTROL OF A STEAM OR
GAS HEATED TANK.

Size.....Inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	4 1/2	5	6
No. 2—Steam under 10 lbs.....													
No. 3—Steam, 10 lbs. to 100 lbs..													
No. 4—Gas at City Pressure.....													

Prices on Application.

RAWL PLUGS

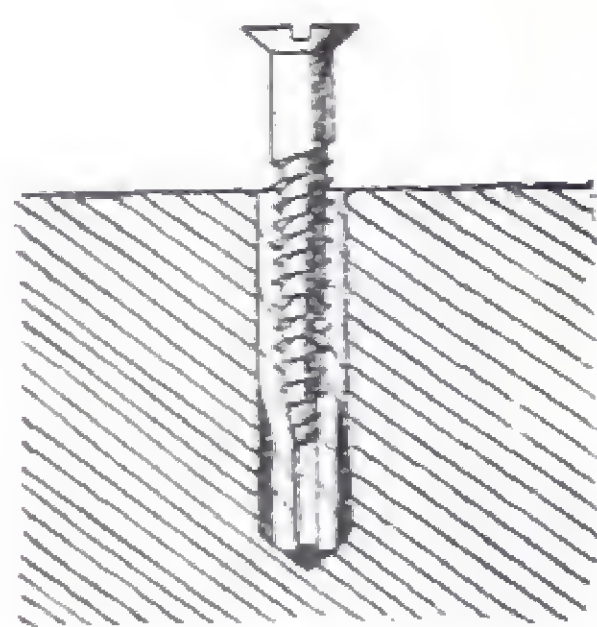


Fig. 807. RAWL PLUG AND SCREW



RAWLPLUG
DRILL



RAWLPLUG
DRILLHOLDER

Fig. 808

Size of Rawl Plug	Size of Screw		Length of Plug						
			$\frac{1}{2}$	$\frac{5}{8}$	$\frac{3}{4}$	1	$1\frac{1}{2}$	2	$2\frac{1}{2}$
3	3-4-5	Per 100 Pcs.	1.05	1.10	1.15	1.25			
6	6-7	Per 100 Pcs.	1.20	1.25	1.30	1.45			
8	8-9	Per 100 Pcs.	1.40	1.50	1.60	1.80	2.20	2.60	
10	10-11	Per 100 Pcs.	1.50	1.65	1.80	2.05	2.55	3.00	
12	12-13-14-15	Per 100 Pcs.			2.20	2.45	2.95	3.45	
14	16-17-18	Per 100 Pcs.			2.60	2.90	3.50	4.10	
16	20	Per 50 Pcs.				3.30	4.10	4.90	5.70
18	22	Per 50 Pcs.				3.90	4.90	5.90	6.90
20	24-26	Per 50 Pcs.				4.90	5.90	6.90	7.90

Above List Prices are for Rawl Plugs only.

RAWL PLUG OUTFITS

Size No	3	6	8	10	12	14	16	18	20
100 Rawl Plugs, assorted, Tool Holder, 2 Bits and a supply of Screws	2.60	2.90	3.15	3.45	4.00	4.60			

Nos. 16, 18 and 20 Outfits have 50 Plugs instead of 100.

RAWL PLUG DRILLS

Numbers	3	6	8	10	12	14	16	18	20
3 Point Drills (Jumping Bits) Doz.	2.70	2.80	3.00	3.30	3.70	4.20	4.80	5.50	6.30
1 Point Drills (Bullet Bits) Doz.	2.60	2.70	2.90	3.20	3.60	4.10			

RAWL PLUG TOOL HOLDERS

Numbers	3	6	8	10	12	14	16	18	20
Tool Holders Each	1.25	1.25	1.25	1.25	1.25	1.25	1.50	1.50	1.50

EXPANSION SHIELDS

SCREW ANCHORS



Fig. 809

MALLEABLE SHIELDS FOR LAG SCREWS

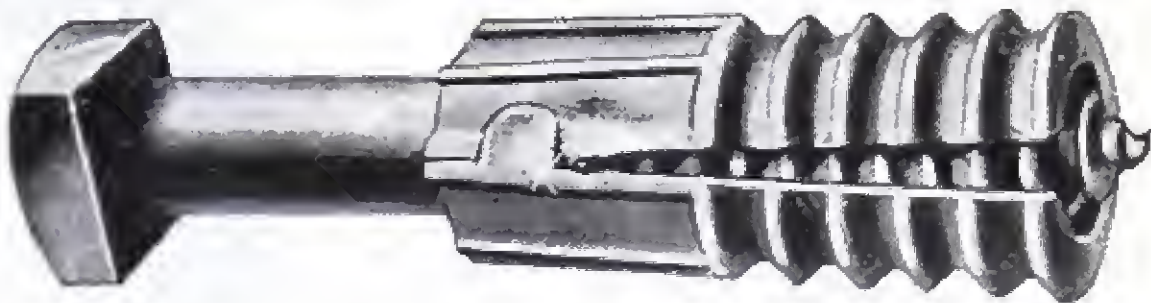


Fig. 810

FOR LAG SCREWS OR MACHINE BOLTS



Fig. 811. Open Back

FOR MACHINE BOLTS

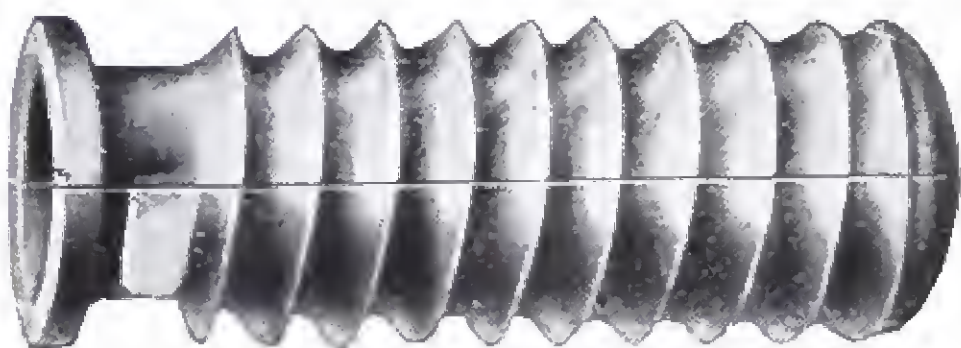


Fig. 812. Closed Back

Fig. 809. Screw Anchors—Price per 100. Anchors only.

Size.....Inches	1/8x3/4	3/16x3/4	3/16x1	3/16x1 1/2	1/4x3/4	1/4x1	1/4x1 1/2	5/16x1	5/16x1 1/2
Outside Dia., Ins.	1/4	5/16	3/8	5/16	7/16	7/16	7/16	7/16	7/16
No. of Screw.....	5-6-7-8	9-10-11	9-10-11	9-10-11	12-13-14	12-13-14	12-13-14	15 to 18	15 to 18
Price per 100.....	4.40	5.00	5.00	6.25	5.60	5.60	6.75	6.25	7.50

Fig. 810. Malleable Shields—For Use With Lag Screws

Price per 100. Shields only—Either Long, Short or Extra Short Standards

Size.....Inches	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1
Outside Diam.....Inches	1/2	9/16	5/8	11/16	3/4	7/8	1 1/8	1 3/8	1 1/2
Length Long.....Inches	1 1/2	1 3/4	2 3/4	2 3/4	3 1/2	3 1/2	3 1/2	5	5
Length Short.....Inches			2	2	2	2	2		
Length Extra Short.....Inches			1 1/2		1 1/2	1 1/2			
Price per 100 Shields.....	9.40	10.50	13.35	17.75	22.00	27.80	39.95	53.30	66.60

Fig. 811—Open Back Type: For use with Machine Bolts or Lag Screws. This type of Bolt is designed for use where the material is to be drawn tight against the wall, ceiling or floor.

Fig. 812—Closed Back Type: For use with Machine Bolts. This type is for use with Eye Bolts, Hook Bolts, Stud Bolts, or where the article is to be suspended or hung away from the supporting wall or ceiling.

Figs. 811 and 812. Price per 100. Shields Only.

Size.....Inches	1/4	5/16	3/8	7/16	1/2	5/8	3/4	7/8	1
Diam. of Case, Open Back .. Ins.	1/2	9/16	5/8		7/8	1	1 1/4		
Diam. of Case, Closed Back...Ins.	5/8	5/8	3/4	7/8	1	1 1/8	1 3/8	1 1/2	1 5/8
Length, Open Back Type.....Ins.	1 1/4	1 1/2	1 3/4		2 1/4	2 1/2	3 1/4		
Length, Closed Back Type.....Ins.	1 1/4	1 1/2	1 7/8	2 1/8	2 1/2	3	3 1/2	4	4 1/2
Price per 100 Shields.....	9.00	9.50	12.50	16.00	21.00	27.00	39.00	52.00	65.00

CORRUGATED COPPER GASKETS

WITH ASBESTOS FILLED CORRUGATIONS



Fig. 813

By the use of these Gaskets an absolutely tight joint is assured. Made in sizes to cover the face of flanges inside the bolts.

Size of Pipe.....Inches	1	1¼	1½	2	2½	3	3½	4	4½	5
Fig. 813—For Standard Pipe.....Each	.16	.20	.24	.32	.40	.48	.56	.64	.72	.80
Fig. 814—For Extra Heavy Pipe..Ea.	.18	.27	.30	.36	.45	.54	.63	.72	.81	.90

Size of Pipe.....Inches	6	7	8	9	10	12	14	15	16	18
Fig. 813—For Standard Pipe.....Each	.96	1.12	1.28	1.44	1.60	1.92	2.24	2.42	2.56	2.88
Fig. 814—For Extra Heavy Pipe. Ea.	1.08	1.26	1.44	1.62	1.80	2.16	2.52	2.70	2.88	3.24

Any size, shape or thickness can be furnished to order.

CORRUGATED COPPER GASKETS

Fig. 815

These are similar to Fig. 813 illustrated above, but without the asbestos filling. Made in sizes to cover the face of flanges inside of bolts, also full face.

Size of Pipe.....Inches	1	1¼	1½	2	2½	3	3½	4	4½	5
Fig. 815—For Inside of Bolts.....Each	.11	.12	.15	.21	.29	.31	.47	.47	.55	.55
Fig. 816—Full Face.....Each	.21	.30	.36	.51	.67	.74	.94	1.02	1.03	1.18

Size of Pipe.....Inches	6	7	8	9	10	12	14	15	16	18
Fig. 815—For Inside of Bolts.....Each	.63	.80	.89	1.18	1.19	1.76	1.87	2.14	2.42	2.34
Fig. 816—Full Face.....Each	1.33	1.68	1.85	2.26	2.45	3.41	3.85	4.07	4.65	4.73

Above list prices are for Standard Pipe, but Gaskets for Extra Heavy Pipe can be furnished at a higher price.

CORRUGATED COPPER GASKETS FOR UNIONS

Fig. 817

Size.....Inches	¼	½	¾	1	1¼	1½	2	3
Fig. 817—Price per 100.....	.40	.45	.50	.60	.70	.80	.90	1.00

SECTIONAL PIPE COVERINGS

ASBESTOS, AIR CELL, 85% MAGNESIA AND
MINERAL WOOL

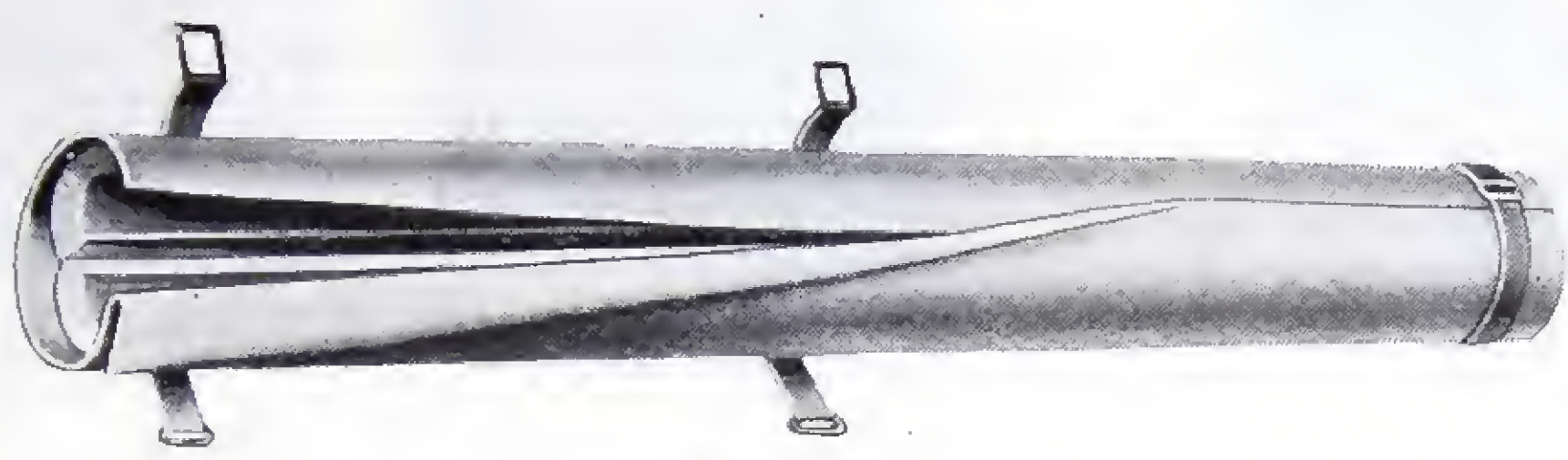


Fig. 818

IN SECTIONS 3 FEET LONG WITH BANDS

Size of Pipe or Fitting.....Inches	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2
Covering.....Per Foot	.22	.24	.27	.30	.33	.36	.40	.45	.50
Elbows.....Each	.30	.30	.30	.30	.30	.36	.42	.48	.54
Tees.....Each	.36	.36	.36	.36	.36	.42	.48	.54	.60
Crosses.....Each	.48	.48	.48	.48	.48	.54	.60	.70	.80
Globe Valves.....Each	.54	.54	.54	.54	.54	.60	.78	.96	1.20
Flanges.....Each	.50	.50	.50	.50	.50	.60	.70	.80	.90
Size of Pipe or Fitting.....Inches	4	4 1/2	5	6	7	8	9	10	12
Covering.....Per Foot	.60	.65	.70	.80	1.00	1.10	1.20	1.30	1.85
Elbows.....Each	.60	.72	.90	1.30	1.80	2.40	3.00	3.60	
Tees.....Each	.75	.90	1.20	1.60	2.20	3.00	3.80	4.60	
Crosses.....Each	.95	1.10	1.50	2.00	2.80	3.60	4.40	5.20	
Globe Valves.....Each	1.50	1.85	2.25	2.80	3.60	4.40	5.30	6.20	
Flanges.....Each	1.00	1.30	1.60	1.90	2.20	2.50	2.80	3.90	

85% MAGNESIA BLOCKS

Thickness.....Inches	$\frac{1}{2}$	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{1}{2}$
Blocks 6 x 36 inches.....Each	.27	.27	.30	.30	.34	.38	.42	.45
Thickness.....Inches	$1\frac{5}{8}$	$1\frac{3}{4}$	$1\frac{7}{8}$	2	$2\frac{1}{8}$	$2\frac{1}{4}$	$2\frac{3}{8}$	$2\frac{1}{2}$
Blocks 6 x 36 inches.....Each	.49	.53	.57	.60	.64	.68	.72	.75
Thickness.....Inches	$2\frac{5}{8}$	$2\frac{3}{4}$	$2\frac{7}{8}$	3	$3\frac{1}{4}$	$3\frac{1}{2}$	4	
Blocks 6 x 36 inches.....Each	.79	.83	.87	.90	.98	1.05	1.20	

Prices on Anti-Sweat Covering supplied on request.

ASBESTOS SHEET MILLBOARD

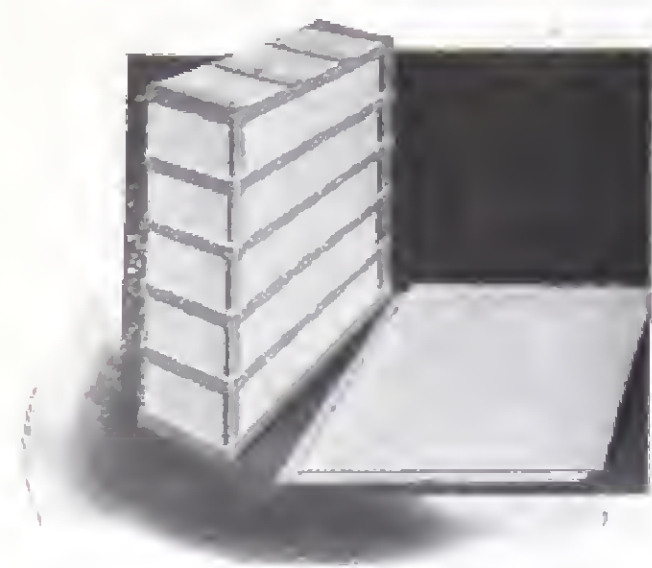


Fig. 819

ASBESTOS PAPER



Fig. 820

HAIR FELT



Fig. 821

ASBESTOS MILL BOARD

Thickness of Sheet .....Inches	$\frac{1}{32}$	$\frac{1}{16}$	$\frac{3}{32}$	$\frac{1}{8}$	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$
Approx. Weight per Sheet .....Lbs.	2	4½	6	8½	12	17	25	30

Standard Sheets, 40 x 40 inches. Prices on Application.

ASBESTOS PAPER

Thickness of Paper .....Inches	.015	.018	.02	.025	.028	$\frac{1}{32}$	$\frac{1}{16}$
Approx. Weight, 100 Sq. Ft. ....Lbs.	6	8	10	12	14	16	38

Prices on Application.

HAIR FELT

Thickness .....Inches	$\frac{1}{2}$	$\frac{3}{4}$	1
In Rolls 6 feet wide (300 sq. ft.) .....Per Sq. Foot	Prices on Application		

MINERAL WOOL IN BULK

Ordinary, average weight, per cub. ft.....14 Lbs.	Prices
Selected, average weight, per cub. ft .....10 Lbs.	on
Extra, average weight, per cub. ft..... 6 Lbs.	Application

ASBESTOS CEMENT

Asbestos Cement, 100 lb. bag.....Per Bag	Prices
Asbestos Cement Felting, 100 lb. bag.....Per Bag	on
Asbestos Hot-Blast Cement Felting, 100 lb bag.....Per Bag	Application
85% Carbonate of Magnesia Cement, 60 lb. bag.....Per Bag	

Corrugated Air Cell Sheeting.....Prices on Application.
 Carpet Felt.....Prices on Application.

PACKING

ITALIAN HEMP

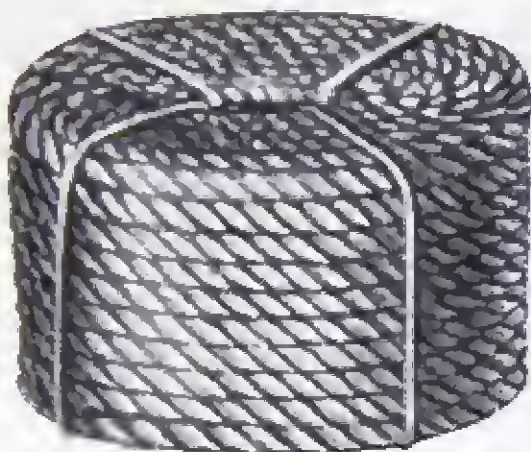


Fig. 822

Sizes 1/4 to 1-in.

SQUARE FLAX

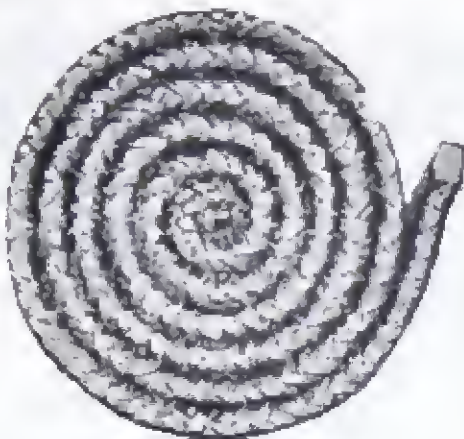


Fig. 823

Sizes 1/4 to 1-in.

Prices on Application

WICK
Cotton or Asbestos



Fig. 824

ASBESTOS ROPE

Sizes 1/4 to 1-in.

SPIRAL PACKING

“Garlock” or “Sun” Brand
Put up in boxes containing 12 feet
Sizes 3/16-in. to 1 1/4-in.

Prices on Application

ASBESTOS VALVE STEM PACKING

This material is made from specially treated Asbestos, either braided or twisted. It is used principally for packing small Globe and Angle Valves, and small stuffing boxes. It is made in round form, will stand any pressure, and give long service.

Sizes in Sixteenths, from 1/16-in. to 1/2-in.

Prices on Application.

BLACK SHEET RUBBER PACKING

(Plain Cloth insertion,—Cloth both sides, and Cloth one side only).

Thickness.....Inches.	1/32	1/16	3/32	1/8	5/32	3/16	1/4
1 Ply, Cloth on one side, or middle.....Per Lb.	.65	.60	.55	.55	.55	.55	.55
2 Ply, Cloth both sides, or one side and middle....Per Lb.		.63	.58	.55	.55	.55	.55
3 Ply, Cloth both sides and middle.....Per Lb.		.66	.61	.58	.58	.55	.55

RED RUBBER PACKING

Pure Gum “Rainbow” or “Sunset” Brands

Thickness.....Inches	1/32	1/16	3/32	1/8	5/32	3/16	1/4
Rainbow or Sunset brands.....Per Lb.	Prices on Application						

BOILER CEMENT

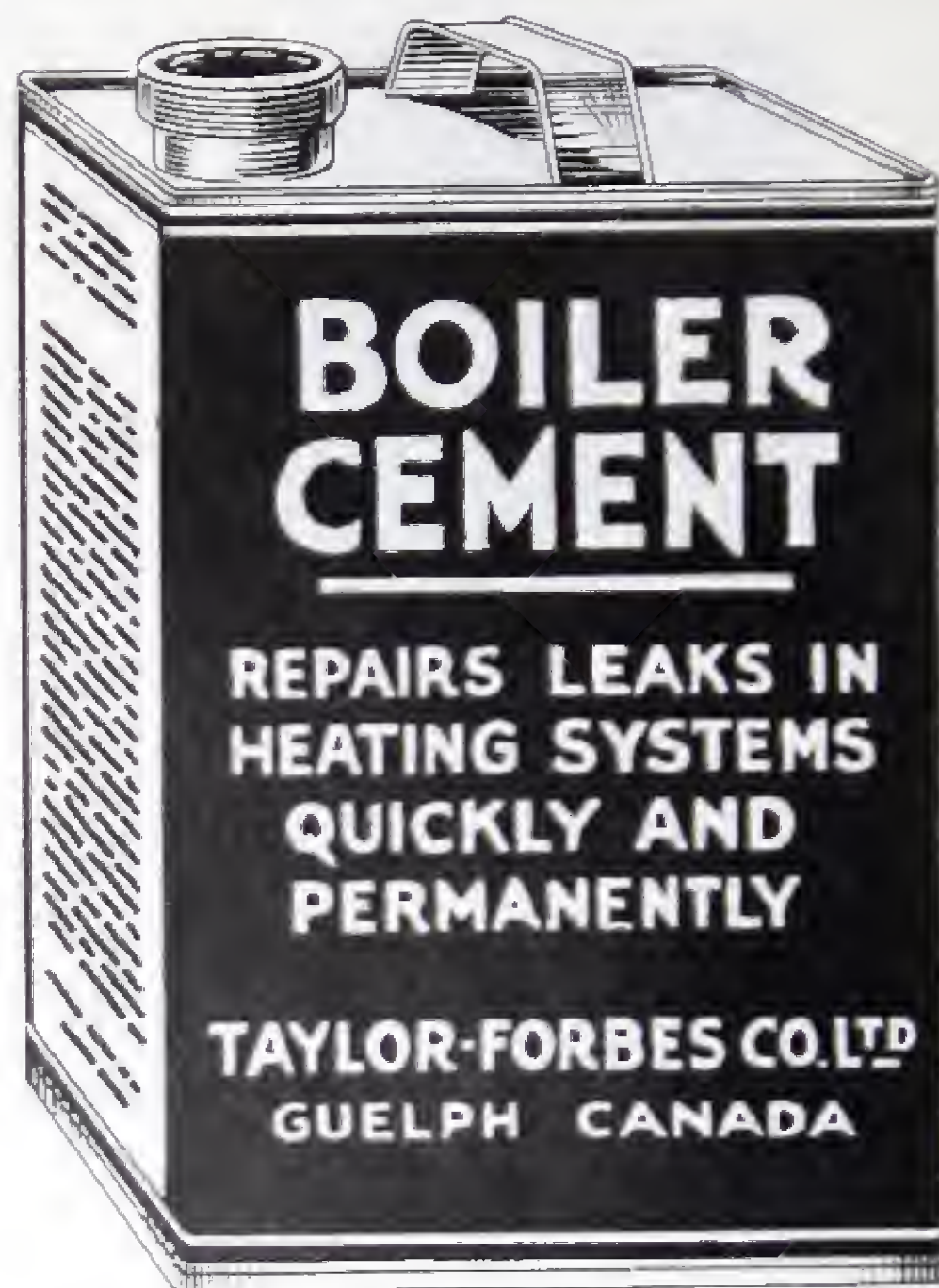


Fig. 825

In liquid form for repairs in cracked sections or leaks in Cast or Tubular Boilers, piping etc., circulates in the water, finds the leak and stops it, making a permanent repair without dismantling the Boiler.

In quart or gallon tins.

Prices on application.

PIPE JOINT CEMENT

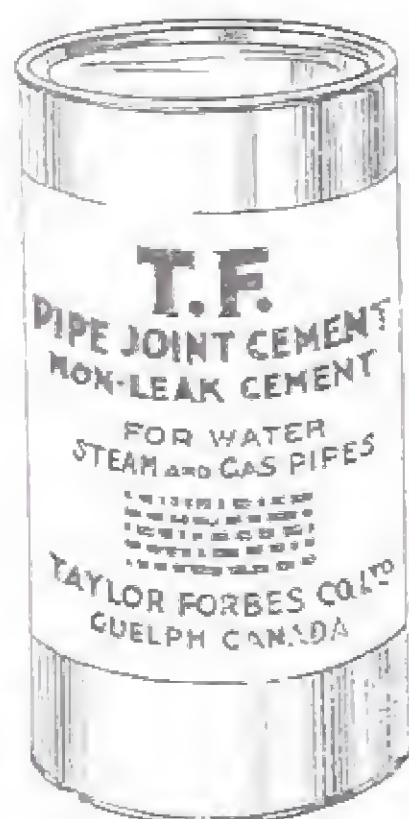


Fig. 926

Makes tight joints for steam, oil or gas etc.

Price on application.

BOILER PUTTY



Fig. 827

3lb. Tin.....	60 cents
5lb. Tin.....	\$1.00

COMPRESSION GREASE CUPS
PLAIN—BRASS OR STEEL



Fig. 828. Exterior

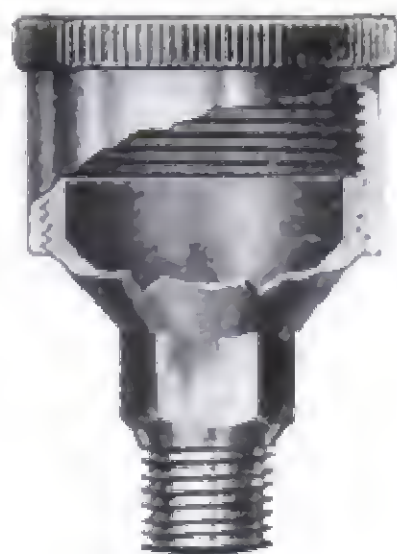


Fig. 829. Sectional

Number.	000	00	0	1	2	3	4
Inside Diam. of Cap. ... Inches	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3
Pipe Thread. Inches	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{2}$

Prices on Application.

COMPRESSION GREASE CUPS

WITH SCREWED PISTON

WITH SCREWED SPINDLE



Fig. 830



Fig. 831

Outside Diameter of Cup. Inches	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Shank, Screwed Iron Pipe Thread... Inches	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$ or $\frac{3}{4}$	$\frac{1}{2}$ or $\frac{3}{4}$	$\frac{3}{4}$
Fig. 830—Finished.....Each	1.50	1.80	2.25	2.75	3.50	4.50	6.00
Fig. 830—Nickel Plated.....Each	1.70	2.00	2.50	3.00	3.80	5.00	6.50
Fig. 831—Finished.....Each	2.40	2.65	3.00	3.75	4.75	6.00	9.00
Fig. 831—Nickel Plated.....Each	2.65	2.90	3.30	4.15	5.15	6.50	9.60

OIL CUPS

BRASS—SCREW TOP



Fig. 832

Size	Number	0	1	2	3	4	5	6	8
Diameter of Body.....	Inches	$\frac{3}{4}$	$\frac{7}{8}$	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2
Size of Shank	Inches	$\frac{1}{8}$	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{3}{8}$
Without Syphon Polished Brass.....	Each	.30	.35	.40	.50	.60	.90	1.25	1.75
With Syphon Polished Brass.....	Each	.40	.45	.50	.60	.70	1.00	1.35	1.85
Without Syphon Nickel Plated	Each	.50	.55	.65	.75	.90	1.25	1.65	2.25
With Syphon Nickel Plated	Each	.60	.65	.75	.85	1.00	1.35	1.75	2.35

OIL CUPS

BRASS—ELBOW PATTERN

Plain



Fig. 833

Outside Diameter of Cup	Inches	1	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2
Shank, Screwed Iron Pipe.....	Inches	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{2}$
Fig. 833—Finished.....	Each	.80	.95	1.10	1.55	2.00	2.50
Fig. 833—Nickel Plated	Each	1.00	1.15	1.30	1.80	2.25	2.80

OIL CUPS

CRANK PIN PLUNGER OILER
With Double-Feed and Automatic Shut-off



Fig. 834

SNAP-LEVER, SIGHT FEED
OIL CUP



Fig. 835

Fig. 834. WITH DOUBLE FEED AND AUTOMATIC SHUT-OFF

Size Number.....	400	401	402	403	404	405
Outside Diameter of Glass..... Inches	1¼	1½	1¾	2	2¼	2½
Height of Glass..... Inches	1⅛	1⅜	1½	1¾	2⅛	2⅜
Capacity..... Ounces	¾	1	1¼	2¼	4	5
Pipe Thread of Shank..... Inches	¼	¼	⅜	⅜	½	½
Brass Finish..... Each	1.50	1.75	2.00	2.50	3.00	4.00
Nickel Plated..... Each	1.90	2.20	2.50	3.00	3.60	4.70
Extra Glasses..... Each	.08	.10	.11	.12	.15	.25
Extra Washers..... Dozen	.12	.18	.24	.30	.36	.42

Fig. 835. WITH SIGHT FEED

Size Number.....	550	551	552	553	554	555	556	557
Outside Diameter of Glass..... Inches	1¼	1½	1¾	2	2¼	2½	3	3½
Height of Glass..... Inches	1⅛	1⅜	1½	1¾	2⅛	2⅜	3	4
Capacity..... Ounces	⅝	1	1¼	2¼	4	5	10	18
Pipe Thread of Shank..... Inches	⅛	¼	¼	⅜	⅜	½	½	½
Brass Finish..... Each	3.00	3.25	3.50	3.75	4.25	5.25	7.25	9.25
Nickel Plated..... Each	3.50	3.75	4.00	4.25	4.75	5.75	8.00	10.25
Extra Glasses..... Each	.08	.10	.11	.12	.15	.25	.40	.65
Extra Washers..... Dozen	.12	.18	.24	.30	.36	.42	.52	.64

OIL CUPS

FOR GAS ENGINE CYLINDERS



Fig. 836

Size Number.....	652	653	654	655	656	657
Outside Diameter of Glass.....Inches	1 $\frac{3}{4}$	2	2 $\frac{1}{4}$	2 $\frac{1}{2}$	3	3 $\frac{1}{2}$
Height of Glass.....Inches	1 $\frac{1}{2}$	1 $\frac{3}{4}$	2 $\frac{1}{8}$	2 $\frac{3}{8}$	3	4
Capacity.....Ounces	1 $\frac{1}{4}$	2 $\frac{1}{2}$	4	5	10	18
Pipe Thread of Shank.....Inches	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$
Brass Finish.....Each	2.00	2.80	3.50	4.00	5.40	7.00
Nickel Plated.....Each	2.40	3.25	4.10	4.60	6.25	8.20
Extra Glasses.....Each	.11	.12	.15	.25	.40	.65
Extra Washers.....Dozen	.24	.30	.36	.42	.52	.64

ENGINE LUBRICATORS

PLAIN—POLISHED BRASS



Fig. 837

Size Number.....	1	2	3	4	5	6
Diameter.....Inches	1 $\frac{1}{2}$	1 $\frac{3}{4}$	2	2 $\frac{1}{4}$	2 $\frac{1}{2}$	3
Capacity.....Ounces	1 $\frac{1}{4}$	1 $\frac{1}{2}$	2 $\frac{1}{2}$	4	5	10
Pipe Thread.....Inches	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{3}{4}$
With Cock and Tube.....Each	3.40	3.60	3.90	4.25	4.75	5.75
Without Cock and Tube.....Each	2.40	2.60	2.90	3.25	3.75	4.75

SIGHT FEED STEAM LUBRICATORS

DOUBLE CONNECTION

SINGLE CONNECTION

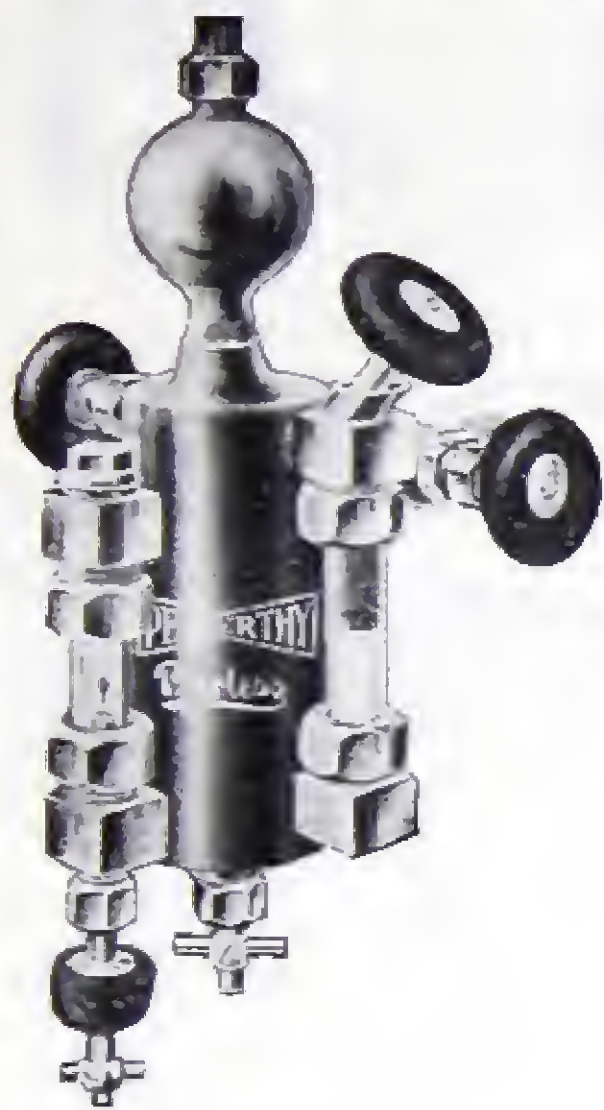


Fig. 838

For Stationary
And Marine Engines

Polished Brass
or Nickel Plated

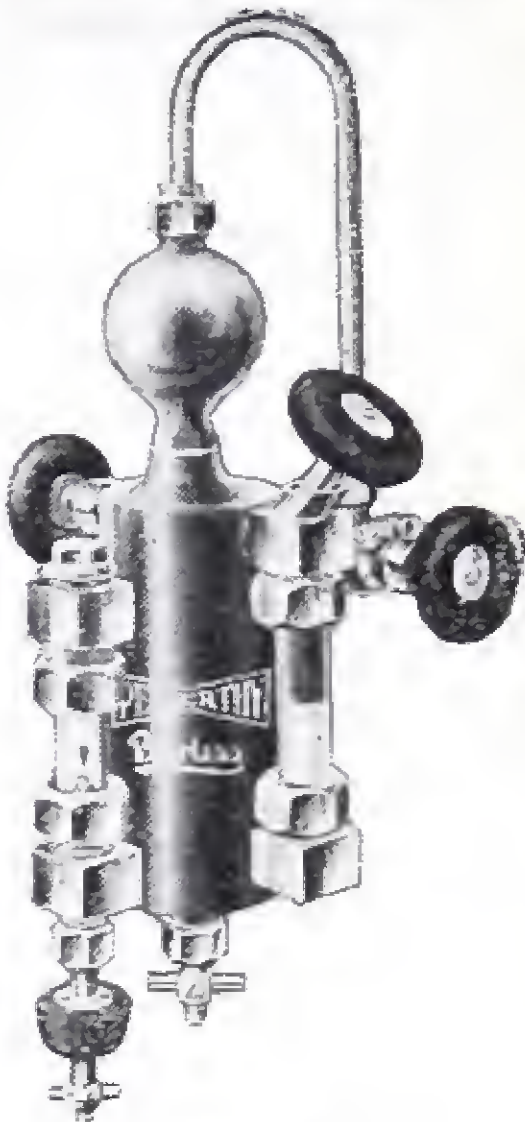


Fig. 839

Capacity.....	$\frac{1}{3}$ Pint	$\frac{1}{2}$ Pint	1 Pint	1 Quart
Pipe Thread.....Inches	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$	$\frac{1}{2}$

SIGHT FEED STEAM LUBRICATORS

DOUBLE CONNECTION

SINGLE CONNECTION



Fig. 840

For Portable and Traction
Engines, Hoisting Engines,
Steam Pumps Etc.

Polished Brass or
Nickel Plated

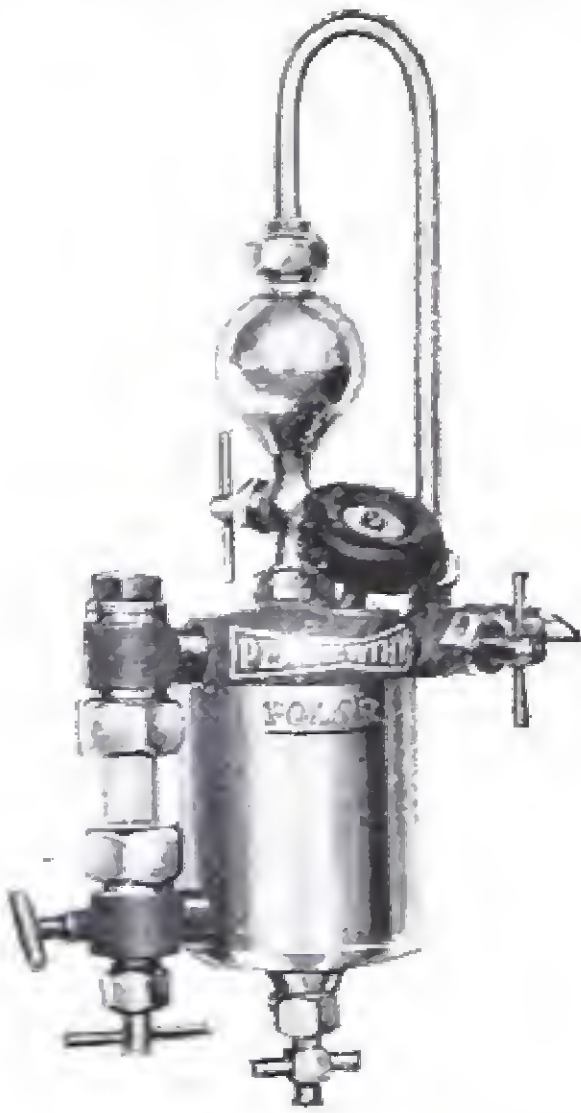
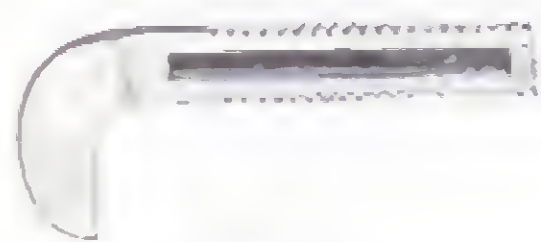


Fig. 841

Capacity.....	$\frac{1}{3}$ Pint	$\frac{1}{2}$ Pint	1 Pint	1 Quart
Pipe Thread.....Inches	$\frac{3}{8}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{1}{2}$

STILLSON'S GENUINE PIPE WRENCHES



JAW



Fig. 842



FRAME

Made with wood handle 6 to 18 inches. Steel handle 6 to 48 inches.
Ten inch and larger will always be sent with steel handles unless otherwise specified.

Size.	Inches	6	8	10	14	18	24	36	48
Takes Pipe.	Inches	$\frac{1}{8}$ to $\frac{1}{2}$	$\frac{1}{8}$ to $\frac{3}{4}$	$\frac{1}{8}$ to 1	$\frac{1}{4}$ to $1\frac{1}{2}$	$\frac{1}{4}$ to 2	$\frac{1}{4}$ to $2\frac{1}{2}$	$\frac{1}{4}$ to $3\frac{1}{2}$	1 to 5
Fig. 842	Each	2.00	2.25	2.50	3.50	5.00	7.25	13.50	20.00

PRICE LIST OF PARTS

Size	Inches	6	8	10	14	18	24	36	48
Jaws, Movable	Each	.75	.80	.85	1.15	1.75	2.25	4.35	7.50
Frames	Each	.38	.42	.50	.60	.75	.95	1.70	2.20
Adjusting Nuts.	Each	.12	.15	.20	.30	.35	.55	1.10	1.50
Pins	Each	.03	.03	.04	.04	.04	.04	.05	.05
Spring Rivets	Each	.01	.01	.02	.02	.02	.02	.02	.02
Springs	Each	.10	.10	.10	.10	.10	.11	.13	.13

TRIMO PIPE WRENCHES



Fig. 843

Size	Inches	6	8	10	14	18	24	36	48
Takes Pipe.	Inches	$\frac{1}{8}$ to $\frac{1}{2}$	$\frac{1}{8}$ to $\frac{3}{4}$	$\frac{1}{8}$ to 1	$\frac{1}{4}$ to $1\frac{1}{2}$	$\frac{1}{4}$ to 2	$\frac{1}{4}$ to $2\frac{1}{2}$	$\frac{1}{2}$ to $3\frac{1}{2}$	1 to 5
Fig. 843	Each	2.00	2.25	2.50	3.50	5.00	7.25	13.50	20.00

PRICE LIST OF PARTS

Movable Jaws.	Each	.75	.80	.85	1.15	1.75	2.25	4.35	7.50
Frames	Each	.38	.42	.50	.60	.75	.95	1.70	2.20
Nuts	Each	.12	.15	.20	.30	.35	.55	1.10	1.50
Springs	Each	.10	.10	.10	.10	.10	.11	.13	.13
Pins	Each	.03	.03	.04	.04	.04	.04	.05	.05

BARNES' PIPE CUTTERS
THREE WHEEL



Fig. 844

Number	1	2	3	4	5	6	6½	7
Cuts Pipe Inches	⅛ to 1	½ to 2	1½ to 3	2½ to 4	4 to 6	6 to 8	8 to 10	9 to 12
Price Complete. Each	4.50	6.00	10.00	20.00	30.00	40.00	45.00	50.00
Extra Cutters. Each	.25	.30	.40	.50	.75	.75	.75	.75
Extra Pins .. Each	.10	.10	.10	.20	.20	.20	.20	.20

TRIMO CUTTERS
EITHER 3 WHEEL TYPE OR ROLLER TYPE



Fig. 845

Number	1	2	3
Cuts Pipe Inches	⅛ to 1¼	½ to 2	1¼ to 3
Price, Complete with 2 Extra Cutters. Each	4.50	6.00	10.00
Extra Cutters or Rollers. Each	.30	.30	.40
Extra Pins .. Each	.10	.10	.10

THE "VULCAN BI-JAW" CHAIN PIPE WRENCHES
WITH FLAT LINK CHAIN

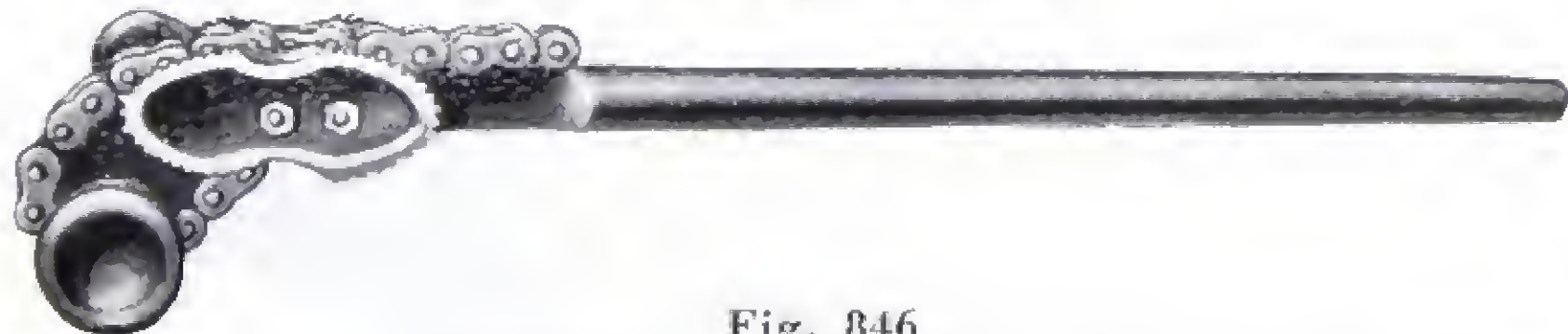


Fig. 846

Number	30	31	32	33	33½	34	35
Capacity, size Pipe Inches	⅓ to ¾	⅛ to 1½	¼ to 2½	¾ to 4	1 to 6	1½ to 8	2 to 12
Extreme Length,..... Inches	13¾	20	27	37	44½	50½	64½
Price, complete..... Each	2.50	3.50	5.00	7.00	9.00	11.00	18.00
Extra Chains..... Each	.75	1.00	1.50	2.50	3.25	4.00	6.00
Extra Jaws Each	1.00	1.75	2.75	4.00	4.75	5.50	7.50
Extra Nuts and Studs Each	.20	.25	.35	.45	.55	.70	.90

KNIFE HANDLE WRENCHES



Fig. 847

Length.....Inches	6	8	10	12	15	18	21
Fig. 847—Black.....Per dozen	10.00	12.00	14.00	17.00	24.00	30.00	36.00

TRIMO NUT WRENCHES

The Trimo is so constructed that the leverage increases in proportion to the increased size of the nut to which it is applied.

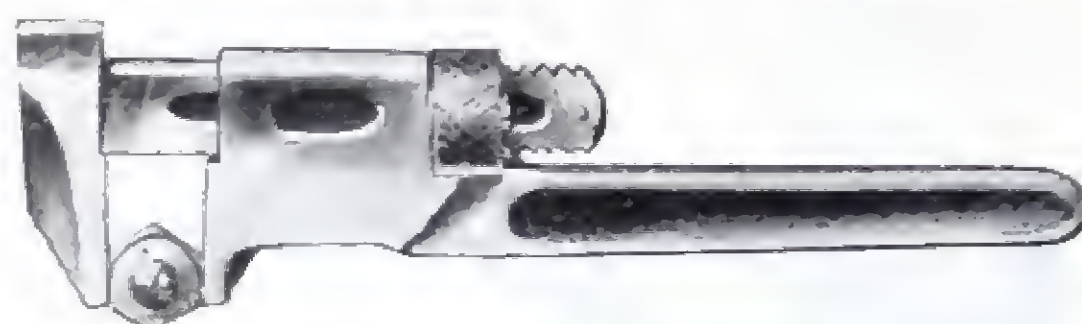


Fig. 848. SEMI-BRIGHT

The nut guards, which project beyond the nut, are a new feature, and when the wrench is once set, the adjustment is kept perfect.

Length.....Inches	6	8	10	12	15	18	21
Capacity, Size Nut.....Inches	$1\frac{5}{16}$	$1\frac{5}{16}$	$1\frac{3}{4}$	$2\frac{1}{8}$	$2\frac{5}{8}$	$3\frac{1}{4}$	$4\frac{1}{8}$
Fig. 848.....Per dozen	10.00	12.00	14.00	18.00	24.00	32.00	39.00
Extra Jaws.....Each	.50	.60	.70	.80	1.20	1.35	1.65
Extra Nuts.....Each	.10	.10	.14	.18	.21	.25	.33

GAUGE GLASS CUTTER



Fig. 849

Fig. 849.....	Each	1.50
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PIPE TAPS AND REAMERS

PIPE TAPS



Fig. 850

PIPE REAMERS



Fig. 851

COMBINED DRILL REAMER AND TAP

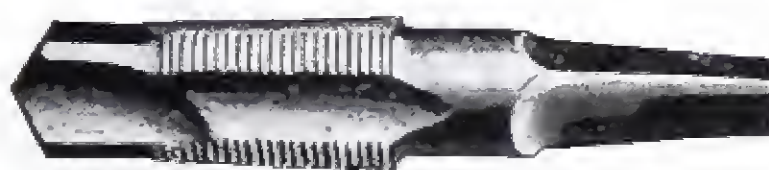


Fig. 852

Size.....Inches	$\frac{1}{8}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	1	$1\frac{1}{4}$	$1\frac{1}{2}$	2	$2\frac{1}{2}$	3	$3\frac{1}{2}$	4
Fig. 850.....Each	1.00	1.20	1.60	2.00	2.80	4.40	5.00	6.60	10.00	15.00	22.50	30.00	45.00
Fig. 851.....Each	1.00	1.20	1.60	2.00	2.80	4.40	5.00	6.60	10.00	15.00	22.50	30.00	45.00
Fig. 852.....Each		2.25	2.50	3.00	4.50	6.00	7.25	8.50	10.75				
No. of Threads. Pipe Taps....	27	18	18	14	14	$11\frac{1}{2}$	$11\frac{1}{2}$	$11\frac{1}{2}$	$11\frac{1}{2}$	8	8	8	8

TUBE EXPANDERS

Self Feeding



Fig. 853

Size, Inches	1	$1\frac{1}{4}$	$1\frac{1}{2}$	$1\frac{3}{4}$	2	$2\frac{1}{4}$	$2\frac{1}{2}$	$2\frac{3}{4}$	3	$3\frac{1}{4}$	$3\frac{1}{2}$	$3\frac{3}{4}$	4	$4\frac{1}{2}$	5	6
Fig. 853 Ea.	3.60	3.60	3.60	4.10	3.60	4.40	4.70	5.90	5.90	8.30	10.20	11.50	11.50	17.00	26.00	31.00

THE "VULCAN" CHAIN PIPE VISES



Fig. 854

For holding Pipe, Bolts, Bars, Shafts, etc., from $\frac{1}{4}$ to 8 inches in diameter. Made entirely of wrought steel, the drop forced jaws are tempered for file sharpening.

Number	Takes Pipe Sizes, inches	Prices, Vises and Extra Parts						
		Vise Complete	Jaws	Chain with Screw	Screw	Handle and Nut	Nut	Washer
1	$\frac{1}{4}$ to 2	3.50	1.20	1.10	.20	.75	.45	.15
2	$\frac{1}{2}$ to 4	6.50	2.75	1.75	.35	1.50	.90	.25
4	$\frac{1}{2}$ to 8	12.00	7.50	4.75	.70	2.00	1.20	.45

HINGED PIPE VISES

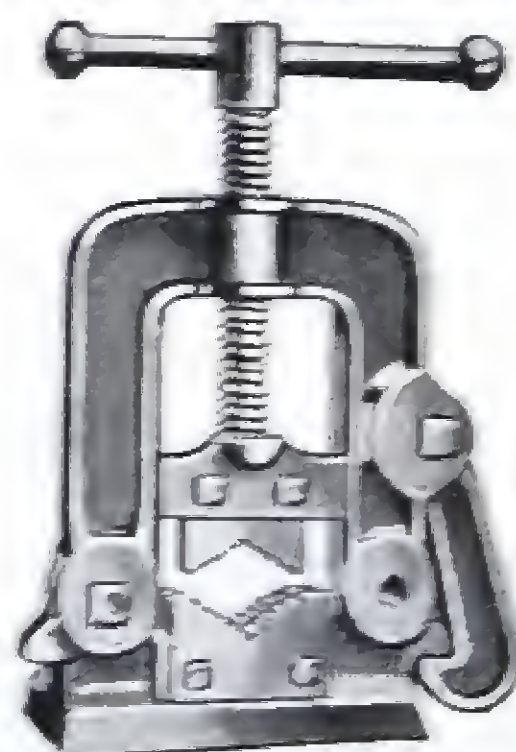


Fig. 855

Screws are one-piece steel turned from solid bars. Pipe jaws are of tool steel milled from solid bars and oil tempered. The base is flat with all bracing flanges underneath, making it convenient to use a wrench in fastening with lag screws or bolts.

Number		398	401	402	403	404	406
Takes Pipe	Inches	$\frac{1}{4}$ to $1\frac{1}{2}$	$\frac{1}{2}$ to 2	$\frac{1}{4}$ to $2\frac{1}{2}$	$\frac{1}{4}$ to $3\frac{1}{2}$	$\frac{1}{2}$ to $4\frac{1}{2}$	$\frac{1}{2}$ to 6
Fig. 855	Each	2.50	4.25	5.00	7.50	11.00	23.50

Extra parts can be furnished to order.

STOCKS AND DIES
BEAVERETTE AND BEAVER

BEAVERETTE



Fig. 856. No. 6

BEAVER



Fig. 857. No. 25

BEAVER (Geared)

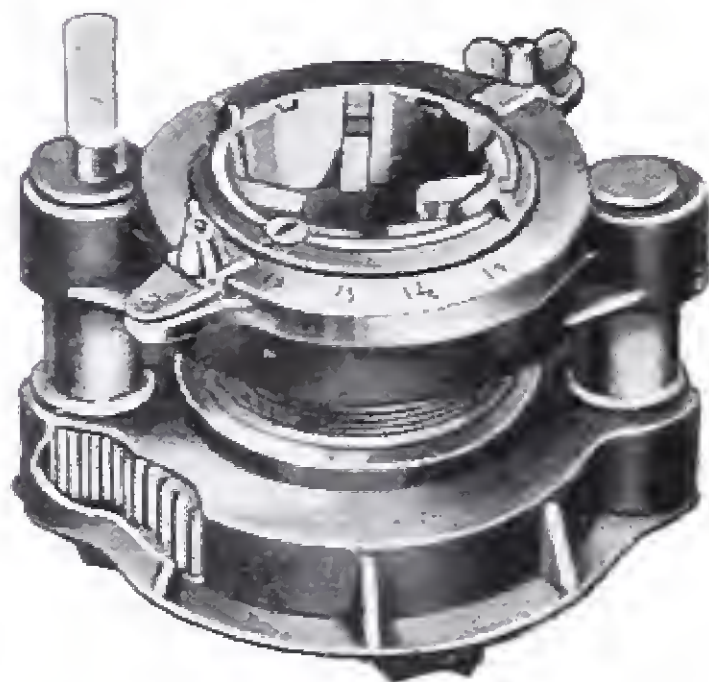


Fig. 858. No. 41

In these stocks the dies are practically without taper and yet they cut an absolutely perfect tapered thread because they automatically move away from the pipe during the threading operation, the dies removing less metal each turn, and consequently each turn of the die stock becomes easier, right up to the finish of the thread.

Many other advantages go with this automatically opening and receding die. The dies being reduced in width to just a few teeth (narrow like a lathe tool) it is possible to do things not possible with the ordinary old style full-thickness dies. For instance dies can be set to thread all sizes of pipe by a simple turn of the handle, avoiding the time lost in changing dies, and the likelihood of losing separate parts as in other tools.

These stocks are instantly adjustable to cut over or under as well as exact standard threads, and the die releases after the thread is cut. Universal chucks or centering devices are used instead of loose bushings in tools up to 2-inch capacity.

Beavers are complete tools. It is not necessary to stop and take out one set of dies and put in another one, nor take out a bushing and hunt for the correct one. All that is needed is to move the handle.

No. 26, not illustrated, is the same in design as No. 25, with the added advantage of a ratchet

RIGHT OR LEFT HAND

Number of Tool.....	6	25	26	41
Threading Pipe.....Inches	1/4, 3/8, 1/2, 3/4	1, 1 1/4, 1 1/2, 2	1, 1 1/4, 1 1/2, 2	2 1/2, 3, 3 1/2, 4
Complete with Dies.....Each	15.00	30.00	35.00	110.00
Extra Dies.....Per Set	3.00	3.50	3.50	9.00

Right Hand will always be sent unless otherwise specified.

"JARDINE" ADJUSTABLE THREADING TOOLS

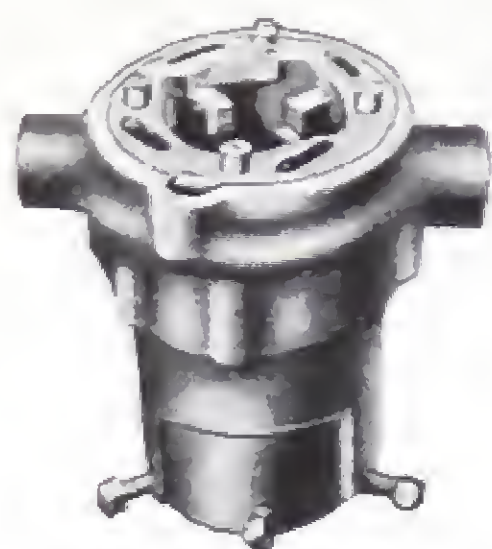


Fig. 859. No. 9
Fig. 860. No. 11



Fig. 861. No. 11R.
Fig. 862. No. 22.

The Jardine Dies cut only with the mouth of the cutter. As the tool advances on the pipe, the cutters open out so as to make a proper taper on the thread. The back of the cutters follow in the thread. They do not cut or rub on the thread, they merely steady the tool, and in consequence the work is made very easy.

These tools can be furnished for cutting Left Hand threads, at an advanced price.

Number of Tool		9	11	11R	*22
Threading Pipe	Inches	$\frac{1}{8}$ to $\frac{3}{4}$	1 to 2	1 to 2	$2\frac{1}{2}$ to 4
Complete with Right Hand Dies	Each	16.00	24.00	31.00	102.00
Extra Dies, Right or Left, Single Set of 4 Pieces	Each	2.00	2.50	2.50	8.75
Extra Bushings	Each	.24	.40	.40	1.90

*Ratchet and Driving Cross supplied with this tool.

"TOLEDO" ADJUSTABLE THREADING TOOLS

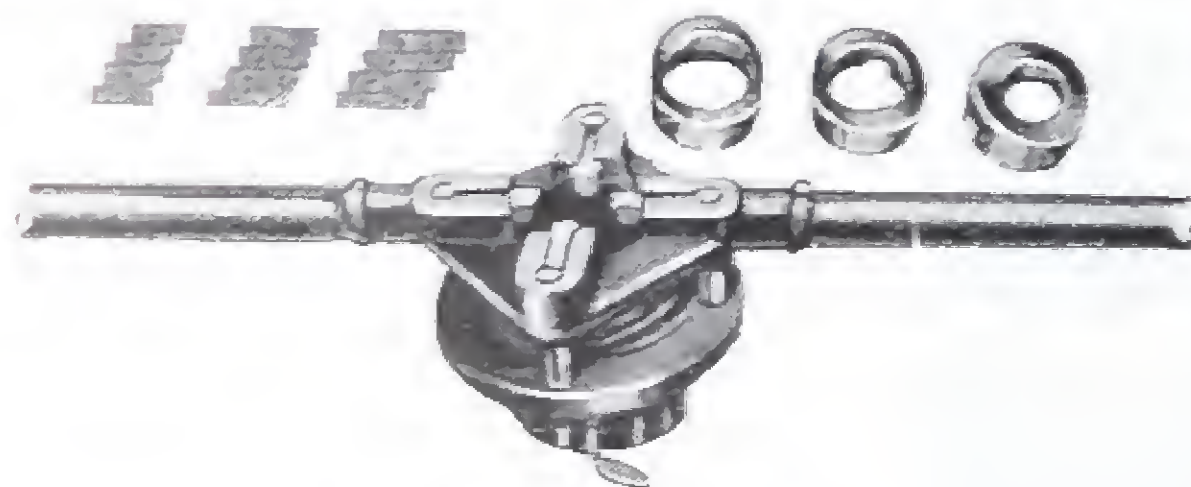


Fig. 863. No. 1
Fig. 864. No. 1A.

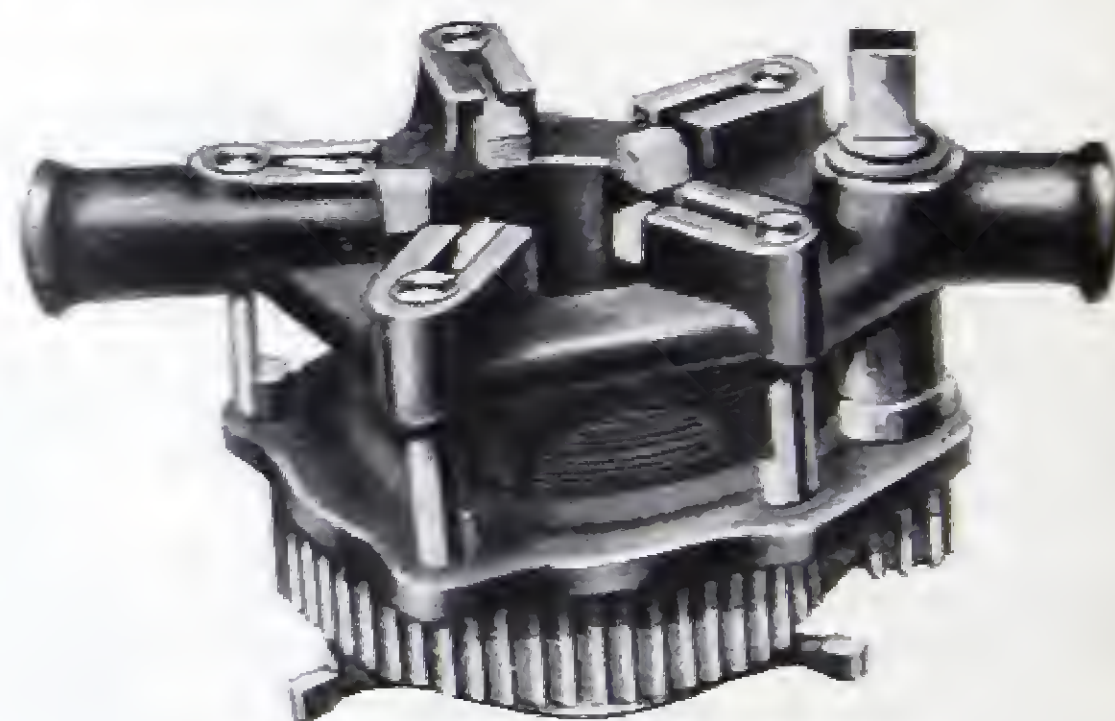


Fig. 865. No. 2

The Toledo and Jardine are essentially the same, but the Toledo is lighter and shorter, and on that account more easily handled, and will thread a somewhat shorter piece of pipe, which is sometimes a great convenience. Can be furnished for cutting Left Hand threads at an advanced price.

Number of Tool		1	1A	2
Threading Pipe	Inches	1 to 2	1 to 2	$2\frac{1}{2}$ to 4
Complete with Right Hand Dies	Each	24.00	31.00	102.00
Extra Dies, Right or Left, Single Set of 4 Pieces	Each	2.50	2.50	8.75
Extra Bushings	Each	.40	.40	1.90
Extra Bushings	Each	(1 to $1\frac{1}{2}$ in.) .50 (2 in.)	(1 to $1\frac{1}{2}$ in.) .50 (2 in.)	(All sizes)

No. 1A is the same as No. 1 with the addition of a Ratchet. No. 2 has Ratchet and Driving Cross.

“NEW SOVEREIGN” HOT WATER BOILER

FOR HARD OR SOFT COAL, COKE, OIL OR WOOD



Fig. 134

Made in nineteen sizes suitable for any House or Green House.

Special catalogues containing valuable information pertaining to the “New Sovereign” Hot Water Boiler will be mailed on request.

Prices on application.

“SOVEREIGN” IN NAME AND QUALITY

“NEW MONARCH” STEAM OR WATER BOILER
FOR HARD OR SOFT COAL

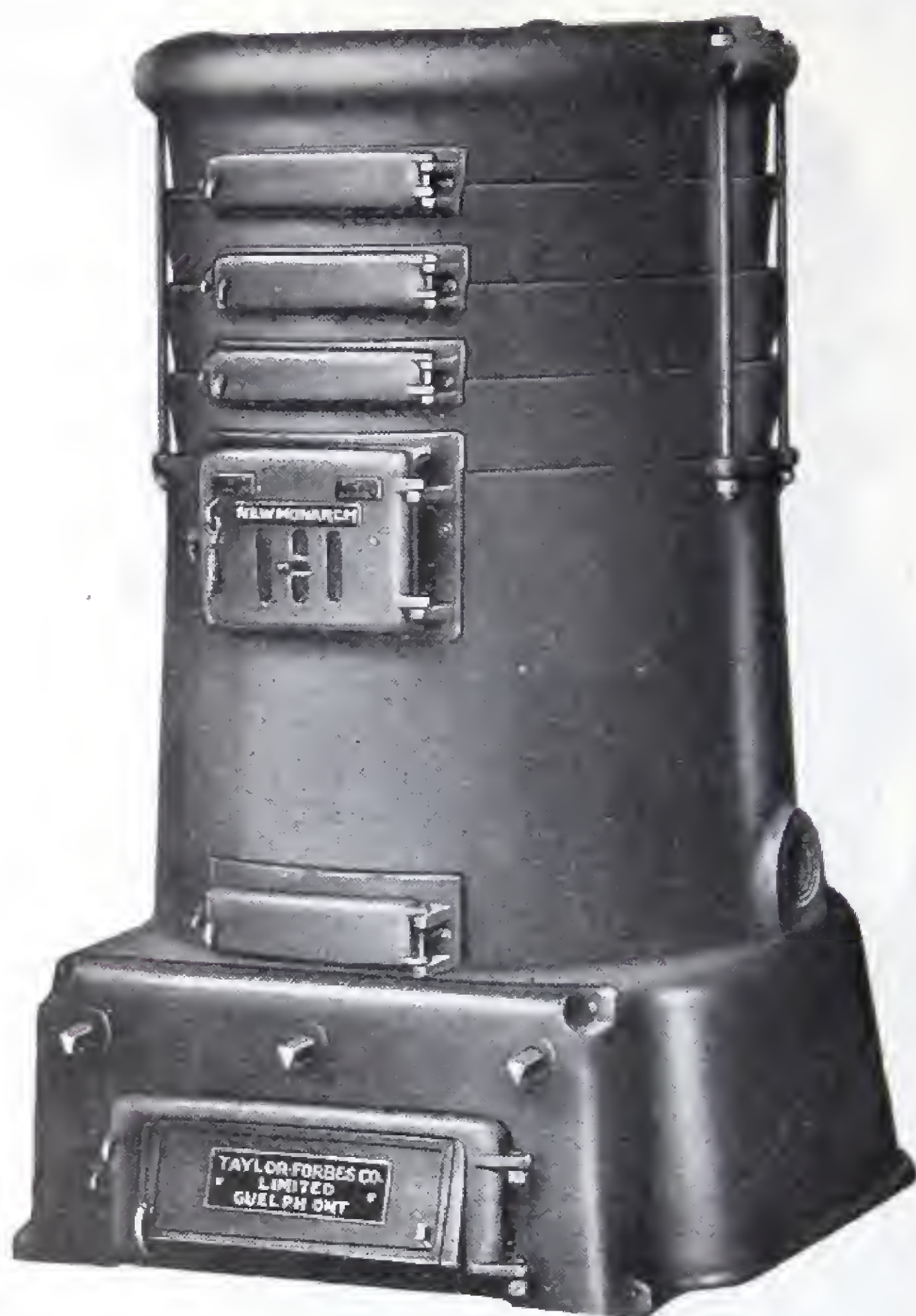


Fig. 136

The New Monarch Boiler, on account of its unusually large combustion chamber permits the burning of the highly volatile bituminous and semi-bituminous coals with remarkably good results. In districts where soft coal is burned exclusively a boiler having the wide range of adaptability of the Taylor-Forbes “New Monarch” would prove a valuable asset.

Prices on Application.

OUR NAME ON EVERY BOILER “IS A GUARANTEE OF QUALITY”

“CANADIAN” STEAM AND WATER BOILER

FOR HARD, SOFT COAL, COKE, WOOD OR OIL

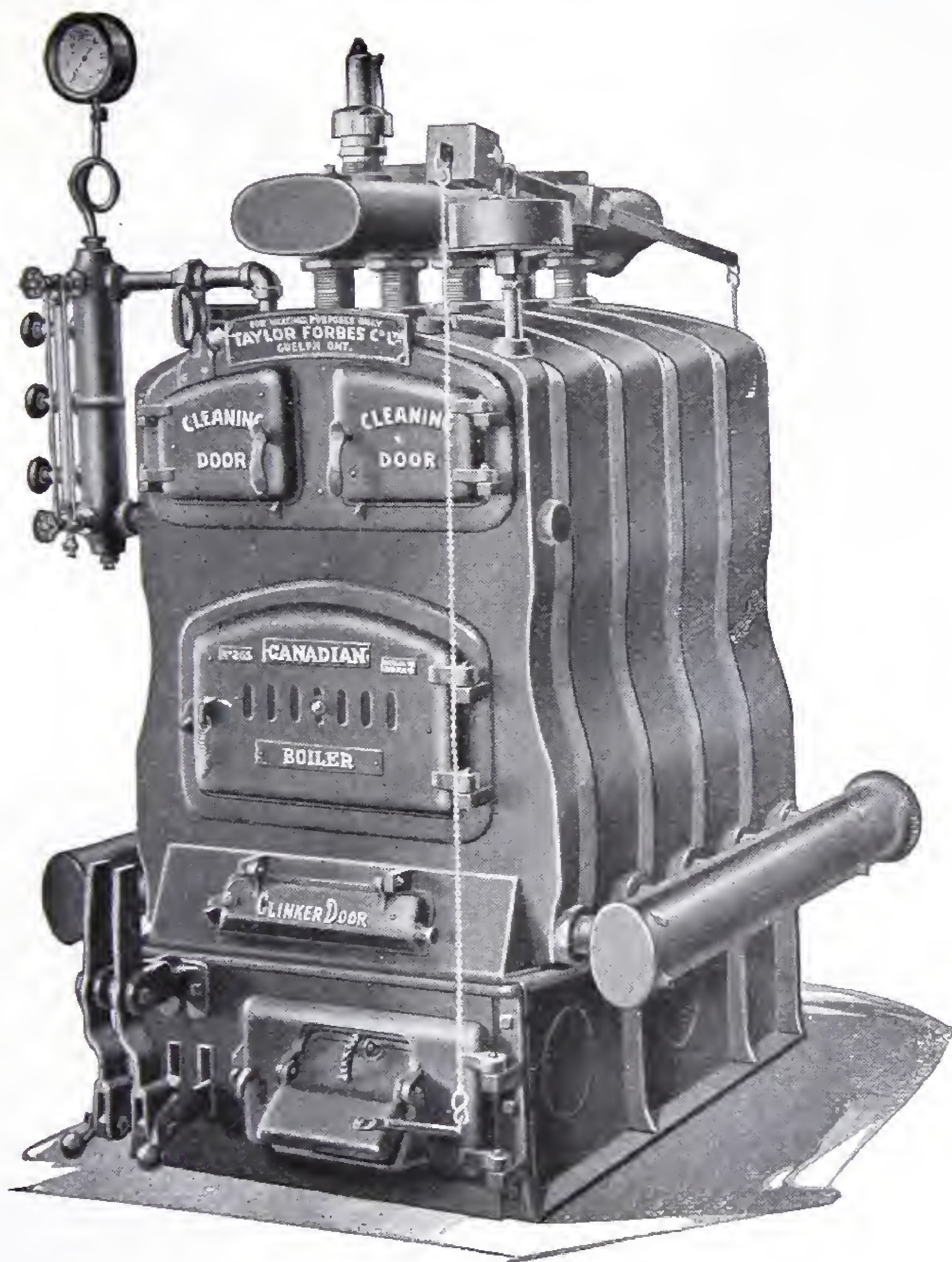


Fig. 137

The “Canadian” Steam or Water Boiler is in use throughout Canada for heating office buildings, Churches, Schools and other large institutions.

Write us for special catalogues describing The “Canadian” Steam and Water Boiler also our complete line of Steel Fire Box heating Boilers.

Prices on Application.

TAYLOR-FORBES BUNGALOW HEATERS

FOR HOT WATER



Fig. 138

The Bungalow Heaters illustrated are only representative of our complete line for Bungalows and small installations. Will burn hard, soft coal, coke or wood.

Taylor-Forbes Bungalow Heaters can be supplied in nine sizes, are conservatively rated, and give entire satisfaction in use.



Fig. 649

Prices and Information on request.

TAYLOR-FORBES COMPANY, LIMITED, GUELPH, ONT.

TAYLOR-FORBES HOT WATER SUPPLY BOILERS AND LAUNDRY HEATERS

FOR HARD, SOFT COAL, COKE OR WOOD
"HOT WATER AT ALL TIMES"



Fig. 650



Fig. 651



Fig. 652



Fig. 653

Prices and Catalogues sent on request.

"SOVEREIGN" RADIATORS



Fig. 671



Sovereign Radiators, Fig. 671, are made in 2, 3 or 4 columns wide any height desired. They can be supplied without legs to be hung on the wall or with pedestal feet to suit any requirements.

Hospital type Radiators, Fig. 673, are made with the sections wide apart to permit of easy cleaning. They can also be supplied with standard or pedestal feet instead of legless as illustrated.

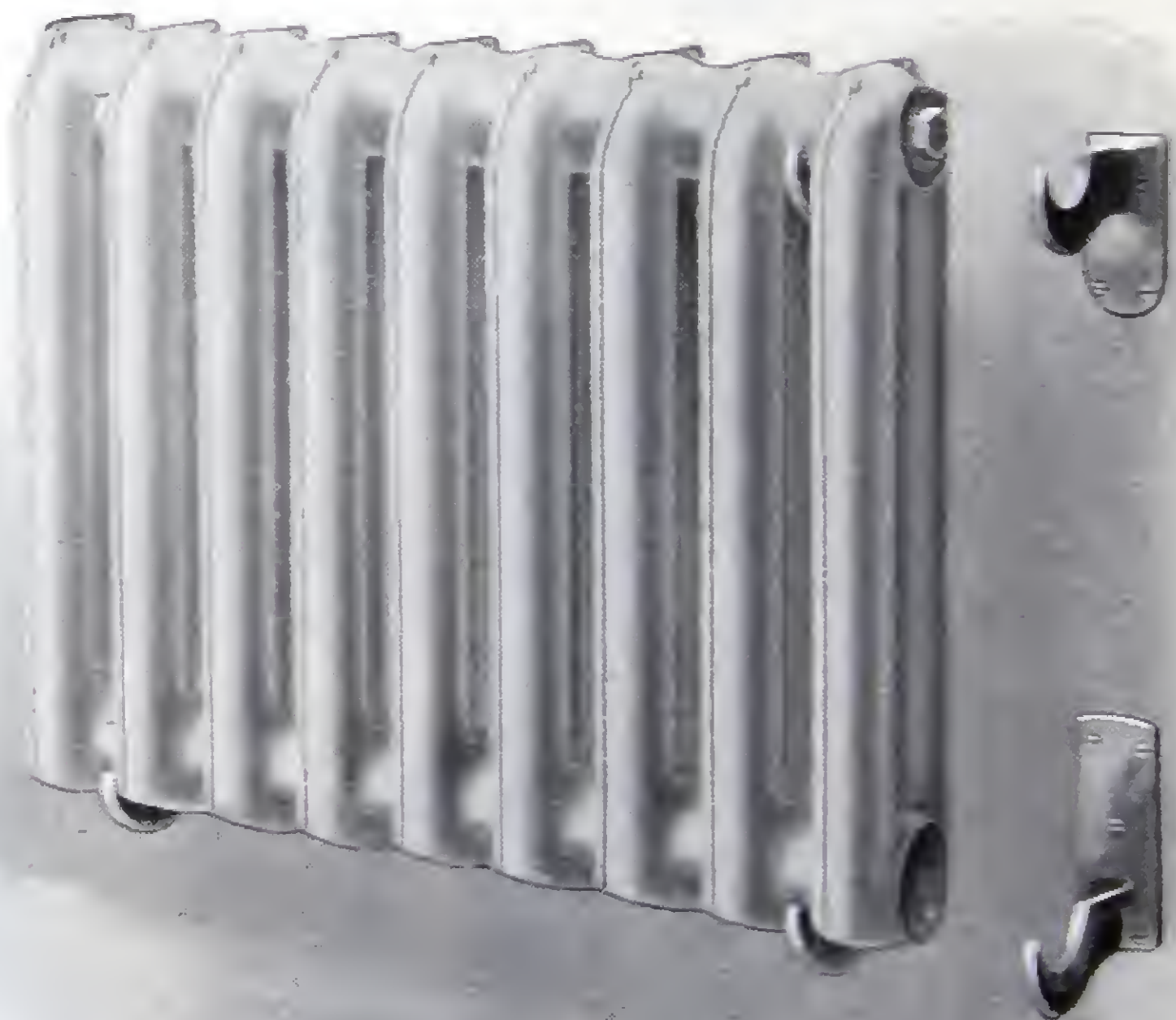


Fig. 673

Prices on Application.

“SOVEREIGN” WALL RADIATORS
FOR STEAM OR WATER

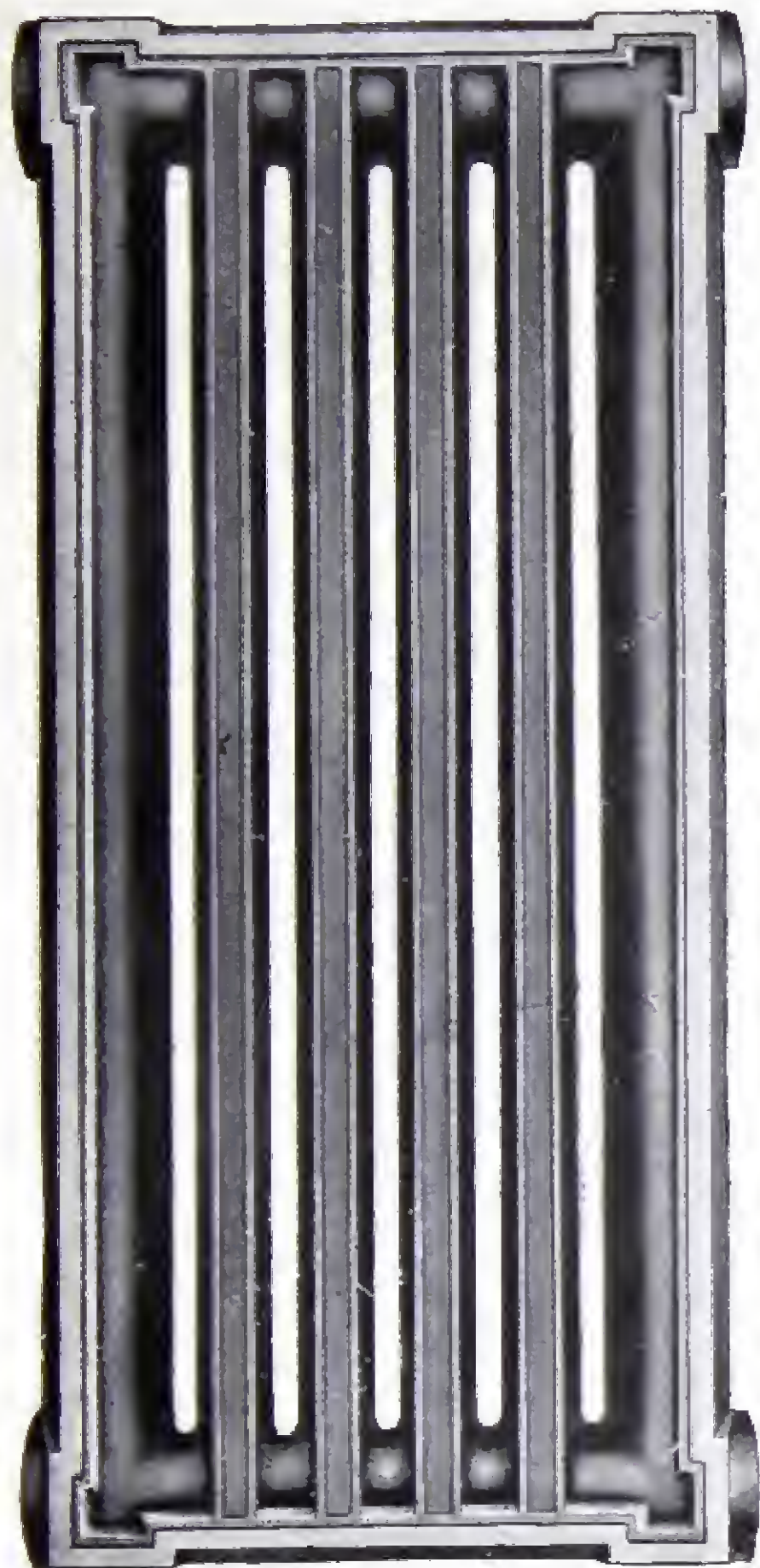


Fig. 675

VICTOR PATTERN

Made in Sizes 7 or 9 square feet per section, vertical only.



Fig. 677

EMPRESS PATTERN

Made in sizes 6, 9 or 12 square feet per section. The 9 foot size is made either vertical or horizontal.

Prices on Application.

AREAS AND CIRCUMFERENCES OF CIRCLES

Diameter	Area	Circumference	Diameter	Area	Circumference
$\frac{1}{8}$	0.0123	.3927	10	78.54	31.41
$\frac{1}{4}$	0.0491	.7854	$10\frac{1}{2}$	86.59	32.98
$\frac{3}{8}$	0.1104	1.178	11	95.03	34.55
$\frac{1}{2}$	0.1963	1.570	$11\frac{1}{2}$	103.86	36.12
$\frac{5}{8}$	0.3068	1.963	12	113.09	37.69
$\frac{3}{4}$	0.4418	2.356	$12\frac{1}{2}$	122.71	39.27
$\frac{7}{8}$	0.6013	2.748	13	132.73	40.84
1	0.7854	3.141	$13\frac{1}{2}$	143.13	42.41
$1\frac{1}{8}$	0.9940	3.534	14	153.93	43.98
$1\frac{1}{4}$	1.227	3.927	$14\frac{1}{2}$	165.13	45.55
$1\frac{3}{8}$	1.484	4.319	15	176.71	47.12
$1\frac{1}{2}$	1.767	4.712	$15\frac{1}{2}$	188.69	48.69
$1\frac{5}{8}$	2.073	5.105	16	201.06	50.26
$1\frac{3}{4}$	2.405	5.497	$16\frac{1}{2}$	213.82	51.83
$1\frac{7}{8}$	2.761	5.890	17	226.98	53.40
2	3.141	6.283	$17\frac{1}{2}$	240.52	54.97
$2\frac{1}{4}$	3.976	7.068	18	254.46	56.54
$2\frac{1}{2}$	4.908	7.854	$18\frac{1}{2}$	268.80	58.11
$2\frac{3}{4}$	5.939	8.639	19	283.52	59.69
3	7.068	9.424	$19\frac{1}{2}$	298.64	61.26
$3\frac{1}{4}$	8.295	10.21	20	314.16	62.83
$3\frac{1}{2}$	9.621	10.99	$20\frac{1}{2}$	330.06	64.40
$3\frac{3}{4}$	11.041	11.78	21	346.36	65.97
4	12.566	12.56	$21\frac{1}{2}$	363.05	67.54
$4\frac{1}{2}$	15.904	14.13	22	380.13	69.11
5	19.635	15.70	$22\frac{1}{2}$	397.60	70.68
$5\frac{1}{2}$	23.758	17.27	23	415.47	72.25
6	28.274	18.84	$23\frac{1}{2}$	433.73	73.82
$6\frac{1}{2}$	33.183	20.42	24	452.39	75.39
7	38.484	21.99	$24\frac{1}{2}$	471.43	76.96
$7\frac{1}{2}$	44.178	23.56	25	490.87	78.54
8	50.265	25.13	26	530.93	81.68
$8\frac{1}{2}$	56.745	26.70	27	572.55	84.82
9	63.617	28.27	28	615.75	87.96
$9\frac{1}{2}$	70.882	29.84	29	660.52	91.10

AREAS AND CIRCUMFERENCES OF CIRCLES—*Continued*

Diameter	Area	Circumference	Diameter	Area	Circumference
30	706.86	94.24	65	3,318.3	204.2
31	754.76	97.38	66	3,421.2	207.3
32	804.24	100.5	67	3,525.6	210.4
33	855.30	103.6	68	3,631.6	213.6
34	907.92	106.8	69	3,739.2	216.7
35	962.11	109.9	70	3,848.4	219.9
36	1,017.8	113.0	71	3,959.2	223.0
37	1,075.2	116.2	72	4,071.5	226.1
38	1,134.1	119.3	73	4,185.4	229.3
39	1,194.5	122.5	74	4,300.8	232.4
40	1,256.6	125.6	75	4,417.8	235.6
41	1,320.2	128.8	76	4,536.4	238.7
42	1,385.4	131.9	77	4,656.6	241.9
43	1,452.2	135.0	78	4,778.3	245.0
44	1,520.5	138.2	79	4,901.6	248.1
45	1,590.4	141.3	80	5,026.5	251.3
46	1,661.9	144.5	81	5,153.0	254.4
47	1,734.9	147.6	82	5,281.0	257.6
48	1,809.5	150.7	83	5,410.6	260.7
49	1,885.7	153.9	84	5,541.7	263.8
50	1,963.5	157.0	85	5,674.5	267.0
51	2,042.8	160.2	86	5,808.8	270.1
52	2,123.7	163.3	87	5,944.6	273.3
53	2,206.1	166.5	88	6,082.1	276.4
54	2,290.2	169.6	89	6,221.1	279.6
55	2,375.8	172.7	90	6,361.7	282.7
56	2,463.0	175.9	91	6,503.9	285.8
57	2,551.7	179.0	92	6,647.6	289.0
58	2,642.0	182.2	93	6,792.9	292.1
59	2,733.9	185.3	94	6,939.8	295.3
60	2,827.4	188.4	95	7,088.2	298.4
61	2,922.4	191.6	96	7,238.2	301.5
62	3,019.0	194.7	97	7,389.8	304.7
63	3,117.2	197.9	98	7,542.9	307.8
64	3,216.9	201.0	99	7,697.7	311.0

CONVERSION TABLE

To reduce	millimetres to inches.....	X .03937 or $\div 25.4$
"	centimetres to inches.....	X .3937 or $\div 2.54$
"	metres to inches.....	X 39.37
"	metres to feet.....	X 3.281
"	metres to yards.....	X 1.094
"	metres per second to feet per minute.....	X 197
"	kilometres to miles.....	X .621 or $\div 1.6093$
"	kilometres to feet.....	X 3,280.8693
"	sq. millimetres to sq. inches.....	X .00155 or $\div 645.1$
"	sq centimetres to sq. inches.....	X .155 or $\div 6.451$
"	sq. metres to sq. feet.....	X 10.764
"	sq. metres to sq. yards.....	X 1.2
"	sq. kilometres to acres.....	X 247.1
"	cubic centimetres to cubic inches.....	X .06 or $\div 16.383$
"	cubic metres to cubic feet.....	X 35.315
"	cubic metres to cubic yards.....	X 1.308
"	cubic metres to gallons (231 cu. in.).....	X 264.2
"	litres to cubic inches.....	X 61.022
"	litres to gallons.....	X .2642 or $\div 3.78$
"	litres to cubic feet.....	$\div 28.316$
"	hectolitres to cubic feet.....	X 3.531
"	hectolitres to bushels (2,150.42 cu. in.).....	X 2.84
"	hectolitres to cubic yards.....	X .131
"	hectolitres to gallons.....	$\div 26.42$
"	grammes to dynes.....	$\div 981$
"	grammes to ounces (avoirdupois).....	X .035 or $\div 28.35$
"	grammes per cu. cent. to lbs. per cu. inch.....	$\div 27.7$
"	joules to ft. lbs.....	X .7373
"	kilogrammes to ounces.....	X 35.3
"	kilogrammes to lbs.....	X 2.2046
"	kilogrammes to tons.....	X .001
"	kilogrammes per sq. cent. to lbs. per sq. in.....	X 14.223
"	kilogramme-metres to foot lbs.....	X 7.233
"	kilogramme per metre to lbs. per foot.....	X .672
"	kilogramme per cu. metre to lbs. per cu. ft.....	X .062
"	kilogrammes per cheval to lbs. per H.P.....	X 2.235
"	kilowatts to H. P.....	X 1.34
"	watts to H. P.....	$\div 746$
"	watts to foot lbs. per second.....	X .7373
"	cheval vapeur to H. P.....	X .9863
"	gallons of water to lbs.....	X 10
"	atmospheres to lbs. per sq. inch.....	X 14.7

HYDRAULIC EQUIVALENTS

- 1 imperial gallon = 277.274 cubic inches.
- 1 imperial gallon = 0.16045 cubic foot.
- 1 imperial gallon = 10 lb.
- A cubic foot of sea water = 64.00 lb.
- A cubic inch of sea water = 0.037037 lb.
- A cubic foot of water = 62.32 lb.
- A cubic inch of water = 0.03616 lb.
- A cylindrical foot of water = 48.96 lbs.
- A cylindrical inch of water = 0.0284 lb.
- A column of water 12 in. long 1 in. square = 0.434 lb.
- A column of water 12 in. long 1 in. diameter = 0.340 lb.
- The capacity of a 12 in. cube = 6.232 gallons.
- The capacity of a 1-in. square 1 ft. long = 0.0434 gallon.
- The capacity of a 1-ft. diameter 1 ft. long = 4.896 gallons.
- The capacity of a cylinder in gallons 1yd. long = 0.1 diameter squared.
- The capacity of a 1-in. diameter 1 ft. long = 0.034 gallon.
- The capacity of a cylindrical inch = 0.002832 gallon.
- The capacity of a cubic inch = 0.003606 gallon.
- The capacity of a sphere 12 in. diameter = 3.263 gallons.
- The capacity of a sphere 1 in. diameter = 0.00188 gallon.
- 1 imperial gallon = 1.2 United States gallon.
- 1 imperial gallon = 4.543 litres of water.
- 1 United States gallon = 231.0 cubic inches.
- 1 United States gallon = 0.83 imperial gallon.
- 1 United States gallon = 3.8 litres of water
- 1 cubic foot of water = 6.232 imperial gallons.
- 1 cubic foot of water = 7.476 United States gallons.
- 1 cubic foot of water = 28.375 litres of water.
- 1 litre of water = 0.22 imperial gallon.
- 1 litre of water = 0. 264 United States gallon.
- 1 litre of water = 61.0 cubic inches.
- 1 litre of water = 0.0353 cubic foot.

NUMBER OF SQUARE FEET OF HEATING SURFACE IN 100 FEET OF ORDINARY PIPE. FROM 1 TO 6 INCH DIAMETER.

Pipe	Square Feet	Pipe	Square Feet
1 "	34.43	3½"	104.72
1¼"	43.30	4 "	117.81
1½"	49.75	4½"	130.90
2 "	62.17	5 "	145.64
2½"	75.26	6 "	173.44
3 "	91.63		

INDEX

A

	Page
Acorn Ornaments, Brass.....	115
Asbestos Cement.....	260
Asbestos Packing, Rope.....	261
Asbestos Packing, Valve Stem.....	261
Asbestos Packing, Wick.....	261
Asbestos Pipe Covering.....	259

B

Ball Ornaments, Malleable.....	101
Bar, Extension.....	120
Basin Cocks.....	200
Basin Traps.....	201
Bath Cocks.....	199
Bath Waste and Overflows.....	200
Beam Clamps.....	120, 123
Beam Plates.....	120
Bends, Pipe.....	8 to 9
Bends, Return, Brass.....	106
Bends, Return, Cast Iron.....	26 to 27
Bends, Return, Malleable.....	90
Bibbs, Compression.....	199
Blow-off Tanks.....	240
Board, Asbestos.....	260
Boiler Couplings, Malleable.....	97
Boiler Elbows, Malleable.....	97
Boiler Stands, Range.....	225
Boiler Supply Cocks, Range.....	98
Boiler Tube Cleaners.....	247 to 248
Boilers, Range.....	224
Bolts, Machine, square head.....	65
Bolts, Toggle.....	130
Brackets, Railing, Brass.....	116
Brackets, Sink.....	225
Brushes, Boiler Tube.....	247
Bushings, Brass.....	108
Bushings, Cast Iron.....	25
Bushings, Malleable.....	89

C

Caps, Brass.....	107
Caps, Cast Iron.....	24
Caps, Malleable.....	89
Ceiling Flanges.....	127
Ceiling Plates.....	117
Cellar Drainers.....	241
Cement, Asbestos.....	260
Cement, Boiler.....	262
Cement, Pipe Joint.....	262
Chandelier Hooks and Loops, Malleable.....	92

INDEX—Continued

	Page
Cistern Pumps.....	243 to 244
Clamps, Beam.....	120 to 124
Classification of Malleable Fittings.....	99
Clips, Pipe.....	122
Closet Flanges, Cast Iron.....	48
Cocks, Air or Pet.....	216 to 217
Cocks, Basin.....	200
Cocks, Bath.....	199
Cocks, Cylinder.....	218 to 220
Cocks, Drain.....	218
Cocks, Drain, Boiler.....	202
Cocks, Gauge, Compression.....	209
Cocks, Gauge, Steam.....	214
Cocks, Hose, Gas.....	196
Cocks, Iron.....	194
Cocks, Stop, Brass.....	197
Cocks, Stop, Compression.....	197 to 198
Cocks, Stop, Corporation.....	203 to 204
Cocks, Stop, Curb.....	204
Cocks, Stop, Steam.....	192 to 193
Cocks, Stop and Waste, Brass.....	195 to 196
Cocks, Stop and Waste, Compression.....	198
Coach Screw Rods.....	128
Coach Screws, Pipe Threaded.....	129
Coils, Domestic.....	251 to 253
Columns, Water.....	205
Concrete Inserts.....	123
Couplings, Boiler, Malleable.....	97
Couplings, Brass.....	108
Couplings, Cast Iron.....	23
Couplings, Cast Iron, Extra Heavy.....	38
Couplings, Drive Pipe.....	3
Couplings, Gauge Glass.....	222
Couplings, Hydraulic.....	100
Couplings, Malleable.....	88
Couplings, Union, Lead Flange.....	202
Couplings, Wrought Iron.....	3
Couplings, Wrought Iron, Extra Heavy.....	3
Covering, Pipe.....	259 to 260
Crosses, Brass, Flanged.....	113
Crosses, Brass, Flanged, Extra Heavy.....	113
Crosses, Brass, Railing.....	115
Crosses, Brass, Screwed.....	106
Crosses, Brass, Screwed, Extra Heavy.....	111
Crosses, Cast Iron, Flanged.....	54
Crosses, Cast Iron, Flanged, Extra Heavy.....	69
Crosses, Cast Iron, Screwed.....	23
Crosses, Cast Iron, Screwed, Extra Heavy.....	38
Crosses, Hydraulic, Malleable.....	100
Crosses, Landing, Malleable.....	102
Crosses, Long Sweep, Cast Iron.....	41

INDEX—Continued

	Page
Crosses, Malleable.....	84
Crosses, Railing, Malleable.....	101 to 103
Crosses, Stair, Malleable.....	102
Cups, Grease.....	263
Cups, Oil.....	264 to 265
Cutters, Gauge Glass.....	270
Cutters, Pipe.....	269
Cutting Iron Pipe.....	1

D

Damper Regulators.....	254
Dies, Pipe.....	273
Discs, Valve.....	168
Distributors, O. S.....	28
Domestic Heaters.....	251 to 253
Drain Cocks.....	218
Drain Cocks, Boiler.....	202
Drainers, Cellar.....	241
Drills, Star.....	130

E

Ejectors, Pemberthy.....	238 to 239
Elbows, Base, Flanged.....	52
Elbows, Base, Flanged, Extra Heavy.....	66
Elbows, Base, Screwed.....	40
Elbows, Boiler, Malleable.....	97
Elbows, Brass, Flanged.....	113
Elbows, Brass Flanged, Extra Heavy.....	113
Elbows, Brass, Screwed.....	104
Elbows, Brass, Screwed, Extra Heavy.....	111
Elbows, Cast Iron, Flanged.....	51
Elbows, Cast Iron, Flanged, Extra Heavy.....	66
Elbows, Cast Iron, Screwed.....	20
Elbows, Cast Iron, Screwed, Extra Heavy.....	38
Elbows, Closet, Cast Iron.....	43
Elbows, Drainage, Cast Iron.....	43 to 48
Elbows, Drop, Brass.....	104
Elbows, Drop, Malleable.....	85
Elbows, Double Branch, Cast Iron, Flanged.....	56
Elbows, Double Branch, Cast Iron, Flanged, Extra Heavy.....	71
Elbows, Double Branch, Cast Iron, Screwed.....	40
Elbows, Hydraulic, Brass.....	111
Elbows, Hydraulic, Malleable.....	100
Elbows, Long Radius, Cast Iron, Flanged.....	51
Elbows, Long Radius, Cast Iron, Flanged, Extra Heavy.....	66
Elbows, Long Sweep, Cast Iron, Flanged.....	56
Elbows, Long Sweep, Cast Iron, Flanged, Extra Heavy.....	71
Elbows, Long Sweep, Cast Iron, Screwed.....	40
Elbows, Malleable.....	80 to 81
Elbows, Pitched, Cast Iron.....	17
Elbows, Railing, Brass.....	115

INDEX—Continued

	Page
Elbows, Railing, Malleable.....	101 to 103
Elbows, Side Outlet, Brass.....	104
Elbows, Side Outlet, Cast Iron, Flanged.....	53
Elbows, Side Outlet, Cast Iron, Flanged, Extra Heavy.....	68
Elbows, Side Outlet, Malleable.....	81
Elbows, Sprinkler, Cast Iron.....	50
Elbows, Street, Brass.....	105
Elbows, Street, Malleable.....	81
Elbows, Taper Reducing, Cast Iron, Flanged.....	52
Elbows, Taper Reducing, Cast Iron, Flanged, Extra Heavy.....	67
Elbows, Union, Dart.....	95
Elbows, Union, Malleable.....	95
Elbows, Union, Radiator.....	167
Elbows, Wash Tray, Malleable.....	91
Eliminators, Air, Marsh.....	176
Ends, Scroll, Brass.....	116
Exhaust Heads.....	185
Expanders, Tube.....	271
Expansion Joints.....	227 to 229
Expansion Plates.....	118
Expansion Shields.....	257
Expansion Tank Mountings.....	222
Expansion Tanks.....	221
Extension Bar.....	120

F

Felt, Carpet.....	260
Felt, Hair.....	260
Fittings, Brass, Flanged.....	113
Fittings, Brass, Flanged, Extra Heavy.....	113
Fittings, Brass, Screwed.....	104 to 110
Fittings, Brass, Screwed, Extra Heavy.....	111 to 112
Fittings, Cast Iron, Flanged.....	51 to 64
Fittings, Cast Iron, Flanged, Dimensions of.....	62 to 63
Fittings, Cast Iron, Flanged, Extra Heavy.....	66 to 75
Fittings, Cast Iron, Flanged, Extra Heavy, Dimensions of.....	77 to 78
Fittings, Cast Iron, Flanged, Extra Heavy, List of standard sizes.....	75
Fittings, Cast Iron, Flanged, Extra Heavy, Templates for drilling.....	79
Fittings, Cast Iron, Flanged, List of standard sizes.....	61
Fittings, Cast Iron, Flanged, standard and extra heavy, Price for galvanizing.....	76
Fittings, Cast Iron, Flanged, Templates for drilling.....	64
Fittings, Cast Iron, Screwed.....	21 to 37
Fittings, Cast Iron, Screwed, Dimensions of.....	37
Fittings, Cast Iron, Screwed, Extra Heavy.....	38 to 39
Fittings, Cast Iron, Screwed, Extra Heavy, List of standard sizes.....	39
Fittings, Cast Iron, Screwed, List of standard sizes.....	33 to 36
Fittings, Drainage, Cast Iron.....	43 to 49
Fittings, Hydraulic, Brass.....	111
Fittings, Hydraulic, Malleable.....	100
Fittings, Long Sweep Cast Iron, Flanged.....	56 to 57
Fittings, Long Sweep Cast Iron, Flanged, Extra Heavy.....	71 to 72

INDEX—Continued

	Page
Fittings, Long Sweep, Cast Iron, Screwed.....	40 to 42
Fittings, Long Sweep, Cast Iron, Screwed, List of standard sizes.....	42
Fittings, Malleable.....	80 to 99
Fittings, Malleable, Classification of.....	99
Fittings, Malleable, Dimensions of.....	37
Fittings, O. S. Cast Iron.....	28
Fittings, Railing, Brass.....	115 to 116
Fittings, Railing, Malleable.....	101 to 103
Fittings, Railing, Malleable, List of standard sizes.....	103
Fittings, Soil Pipe, Cast Iron.....	13 to 20
Fittings, Sprinkler, Cast Iron.....	50
Flanges, Blind, Cast Iron.....	59
Flanges, Blind, Cast Iron, Extra Heavy.....	73
Flanges, Brass.....	114
Flanges, Brass, Extra Heavy.....	114
Flanges, Ceiling.....	127
Flanges, Closet, Cast Iron.....	48
Flanges, Common, Cast Iron.....	58
Flanges, Companion, Cast Iron.....	59 to 60
Flanges, Companion, Cast Iron, Extra Heavy.....	73 to 74
Flanges, Floor, Cast Iron.....	25
Flanges, Floor, Malleable.....	92
Flanges, Floor, Malleable Railing.....	101, 102, 103
Flanges, Pipe Hanger.....	127
Flanges, Railing, Brass.....	115
Flange Unions, Brass.....	109
Flange Unions, Brass, Extra Heavy.....	112
Flange Unions, Cast Iron.....	29
Flange Unions, Cast Iron, Extra Heavy.....	29
Flange Unions, Dart.....	94
Flax, Square.....	261
Floor Flanges, Cast Iron.....	25
Floor Flanges, Malleable.....	92
Floor Flanges, Railing, Malleable.....	101 to 103
Floor Plates.....	117
Flue Cleaners.....	247 to 248
Force Pumps.....	243 to 244
Fusible Plugs.....	215

G

Gaskets, Corrugated Copper.....	258
Gauge Cocks, Compression.....	209
Gauge Cocks, Steam.....	214
Gauge Glass Cutters.....	270
Gauge Glass Supports and Couplings.....	222
Gauge Glass Washers.....	223
Gauge Glasses.....	223
Gauge Syphons.....	214
Gauges, Altitude.....	211
Gauges, Combination Altitude and Thermometer.....	211
Gauges, Combination Pressure and Altitude.....	211

INDEX—Continued

	Page
Gauges, Compound Pressure and Vacuum.....	212
Gauges, Graduation Retard.....	213
Gauges, Pressure.....	210
Gauges, Vacuum.....	212
Gauges, Water.....	206 to 208
Generators, Heat "Hardt".....	253
Glasses, Gauge.....	223
Grease Cups.....	263

II

Hanger Rods.....	128
Hangers, Pipe.....	119 to 130
Hangers, Saddle.....	123
Headers, Branch, Cast Iron.....	30 to 32
Headers, Cluster, Cast Iron.....	31
Heads, Exhaust.....	185
Heaters, Domestic.....	251 to 253
Heat Generators "Hardt".....	253
Hemp, Italian.....	261
Hook Plates.....	118
Hooks, Chandelier, Malleable.....	92
Hooks, U, Wrought Iron.....	129
Hose Cocks, Gas.....	196

I

I Beam Clamps.....	120 to 124
Increasesers, Drainage, Cast Iron.....	48
Injectors, "Pemberthy".....	235 to 237
Inserts, Concrete.....	123

J

Joints, Expansion.....	227 to 229
------------------------	------------

L

Lag Screws.....	120
Laterals Cast Iron, Flanged.....	53
Laterals Cast Iron, Flanged, Extra Heavy.....	68
Locknuts, Brass.....	107
Locknuts, Cast Iron.....	24
Locknuts, Malleable.....	89
Lag Screws with coupling and locknut.....	8
Loops, Chandelier, Malleable.....	92
Lubricators.....	266 to 267

M

Magnesia Blocks.....	259
Magnesia Pipe Covering.....	259
Manifolds, Large, Cast Iron.....	31 to 32
Mill-board, Asbestos.....	260
Mineral Wool.....	259
Mountings, Expansion Tank.....	222

INDEX—Continued

	Page
Pumps, Force.....	244 to 245
Pumps, "Hepburn".....	233 to 234
Pumps, House Service, Electric.....	246
Putty, Boiler.....	262
R	
Range Boilers.....	224
Range Boiler Stands.....	225
Rawl Plugs.....	256
Reamers, Pipe.....	271
Reducers, Cast Iron.....	23
Reducers, Cast Iron, Extra Heavy.....	38
Reducers, Taper, Cast Iron, Flanged.....	55
Reducers, Taper, Cast Iron Flanged, Extra Heavy.....	70
Regulators, Damper.....	254
Regulators, Tank.....	255
Return Bends, Brass.....	106
Return Bends, Cast Iron.....	26 to 27
Return Bends, Malleable.....	90
Rims "Babbitt".....	249 to 250
Rods, Coach Screw.....	128
Rods, Hanger.....	128
Rolls, Pipe.....	124
Rope, Asbestos.....	261
S	
Saddle Hangers.....	123
Saddles, Pipe.....	122
Screws, Coach, Pipe Threaded.....	129
Screws, Lag.....	120
Screws, Long with coupling and Locknut.....	8
Scroll Ends, Brass.....	116
Shields, Expansion.....	257
Sink Brackets.....	225
Soil Pipe and Fittings.....	10 to 20
Spiral Packing.....	261
Sprocket Rims "Babbitt".....	249 to 250
Standards, Brass.....	116
Stands, Boiler.....	225
Star Drills.....	130
Stocks and Dies.....	273
Stop and Waste Cocks, Brass.....	195 to 196
Stop and Wastes, Compression.....	198
Stop Cocks, Brass.....	195
Stop Cocks, Corporation.....	203 to 204
Stop Cocks, Curb.....	204
Stop Cocks, Steam.....	192 to 193
Stops, Compression.....	197 to 198
Strainers.....	242
Straps, Pipe.....	122
Supports, Centre, Gauge Glass.....	222
Syphons, Gauge.....	214

INDEX—Continued

	Page
Tank Regulators	130
Tanks, Blow-off	131
Tanks, Expansion	132
Tanks, Storage	133
Taps, Pipe	134
Taps, Brass, Cast Iron, Screwed	135
Taps, Brass, Cast Iron	136
Taps, Brass, Flanged	137
Taps, Brass, Flanged, Extra Heavy	138
Taps, Brass, Screwed	139
Taps, Brass, Screwed, Extra Heavy	140
Taps, Cast Iron, Flanged	141
Taps, Cast Iron, Flanged, Extra Heavy	142
Taps, Cast Iron, Screwed	143
Taps, Cast Iron, Screwed, Extra Heavy	144
Taps, Double Swivel, Cast Iron, Flanged	145
Taps, Double Swivel, Cast Iron, Flanged, Extra Heavy	146
Taps, Double Swivel, Cast Iron, Screwed	147
Taps, Drainage, Cast Iron	148
Taps, Drain, Brass	149
Taps, Drain, Malleable	150
Taps, Eccentric, Cast Iron	151
Taps, Four-Way, Malleable	152
Taps, Hydraulic, Brass	153
Taps, Hydraulic, Malleable	154
Taps, Landing, Malleable	155
Taps, Malleable	156
Taps, Railing, Brass	157
Taps, Railing, Malleable	158
Taps, Service, Malleable	159
Taps, Side Outlet, Cast Iron, Flanged	160
Taps, Side Outlet, Cast Iron, Flanged, Extra Heavy	161
Taps, Single Swivel, Cast Iron, Flanged	162
Taps, Single Swivel, Cast Iron, Flanged, Extra Heavy	163
Taps, Single Swivel, Cast Iron, Screwed	164
Taps, Standoff, Cast Iron	165
Taps, Four, Malleable	166
Taps, Suction	167
Taps, Union, Brass	168
Taps, Union, Malleable	169
Taps, Wye, Malleable	170
Thermometers	171
Thermometers, Combination, Minimum Gauge and	172
Thermometers, Round End	173
Tools, Threading, Adjustable	174
Tools, Taps, Adjustable	175
Tools, Blast, Duplex Waterless "Marsh"	176
Tools, Drainage, Cast Iron	177
Tools, Four, Duplex Waterless "Marsh"	178

INDEX—Continued

	Page
Traps, Medium Pressure "Marsh".....	179
Traps, Radiator "Marsh".....	177
Traps, Steam, "Anderson Model D".....	180
Traps, Steam, "Nason".....	181
Traps, Steam, "Universal".....	182
Traps, Syphon Return "Marsh".....	178
Tube Cleaners.....	247 to 248
Tube Expanders.....	271

U

U Hooks, Wrought Iron.....	129
Union Couplings, Lead Flange and Iron.....	202
Union Elbows, Dart.....	95
Union Elbows, Malleable.....	95
Union Elbows, Radiator.....	167
Union Tees, Dart.....	96
Union Tees, Malleable.....	96
Unions, Air Pump, Dart.....	94
Unions, Brass.....	109
Unions, Brass, Extra Heavy.....	112
Unions, Dart.....	93
Unions, Flange, Brass.....	109
Unions, Flange, Brass, Extra Heavy.....	112
Unions, Flange, Cast Iron.....	29
Unions, Flange, Cast Iron, Extra Heavy.....	29
Unions, Flange, Dart.....	94
Unions, Malleable.....	93
Unions, Rex.....	94

V

Valve Discs.....	168
Valves, Air.....	172 to 176
Valves, Angle, Brass "J D".....	134
Valves, Angle, Brass "Jenkins".....	135
Valves, Angle, Brass, "Jenkins," Extra Heavy.....	138
Valves, Angle, Brass "Pemberthy".....	142 to 143
Valves, Angle, Brass, "Standard".....	131
Valves, Angle, Iron Body, "Jenkins".....	150
Valves, Angle, Iron Body, "Jenkins", Extra Heavy.....	153
Valves, Angle, Iron Body, "Standard".....	146
Valves, Back Pressure.....	183 to 184
Valves, Blow-Off "Everlasting".....	189 to 190
Valves, Check, Brass "Jenkins".....	136
Valves, Check, Brass, with Drip Cock "Jenkins".....	137
Valves, Check, Brass "Pemberthy".....	141 to 144
Valves, Check, Brass "Standard".....	133
Valves, Check, Iron Body, "Jenkins".....	151
Valves, Check, Iron Body "Jenkins", Extra Heavy.....	154
Valves, Check, Iron Body "Standard".....	149
Valves, Cross, Brass "Jenkins".....	136
Valves, Cross, Brass "Pemberthy".....	142 to 143
Valves, Cross, Iron Body "Jenkins".....	150

INDEX—Continued

	Page
Valves, Foot, Iron Body.....	191
Valves, Gate, Brass "Jenkins Type K".....	132
Valves, Gate, Brass Peet Pattern.....	132
Valves, Gate, Brass "Pemberthy".....	141
Valves, Gate, Brass "Standard".....	131
Valves, Gate, Iron Body, "Jenkins", Extra Heavy.....	152
Valves, Gate, Iron Body, "Jenkins", Extra Heavy, O S & Y.....	152
Valves, Gate, Iron Body, "Jenkins", Fire Underwriters Approved.....	152
Valves, Gate, Iron Body, "Jenkins", O. S. & Y.....	147
Valves, Gate, Iron Body, "Jenkins", Type K.....	147
Valves, Gate, Iron Body, "Jenkins", Type K, with hub ends.....	148
Valves, Gate, Iron Body, "Jenkins", with indicator.....	148
Valves, Globe, Brass, "J D".....	134
Valves, Globe, Brass, "Jenkins".....	135
Valves, Globe, Brass, "Jenkins", Extra Heavy.....	138
Valves, Globe, Brass, "Pemberthy".....	142 to 143
Valves, Globe, Brass, "Standard".....	131
Valves, Globe, Iron Body "Jenkins".....	149
Valves, Globe, Iron Body, "Jenkins", Extra Heavy.....	153
Valves, Globe, Iron Body, "Standard".....	145
Valves, Hose Angle, Brass, "Jenkins".....	140
Valves, Hose Gate, Brass, Peet Pattern.....	139
Valves, Hose Gate, Brass, "Standard".....	139
Valves, Hose Globe, Brass, "Jenkins".....	140
Valves, Iron Body, Flanged, Extra Heavy, Templates for drilling.....	79
Valves, Iron Body, Flanged, Templates for drilling.....	64
Valves, Radiator.....	162 to 171
Valves, Radiator, Angle Swing Check.....	169
Valves, Reducing.....	186 to 188
Valves, Relief.....	157 to 158
Valves, Safety, Brass.....	159
Valves, Safety, Iron Body.....	160 to 161
Valves, Stop and check, Angle, "Jenkins".....	156
Valves, Stop and check, Globe, "Jenkins".....	156
Valves, Stop and Equalizing "Beaver".....	155
Valves, Swing Check, Brass, "Jenkins".....	137
Valves, Swing Check, Brass, "Pemberthy".....	144
Valves, Swing Check, Brass, "Standard".....	134
Valves, Swing Check, Iron Body, "Jenkins".....	154
Valves, Swing Check, Iron Body, "Jenkins", Fire Underwriters Approved.....	151
Vents, Air.....	172 to 176
Vises, Pipe.....	272

W

Washers, Gauge Glass.....	233
Waste and Overflows, Bath.....	200
Waste Nuts, Malleable.....	91
Water Columns.....	205
Water Gauges.....	206 to 208
Wick, Cotton or Asbestos.....	261
Wool, Mineral.....	260

INDEX—Continued

Wrenches.....	Page
Wrenches, Stop Cock.....	268, 269, 270
	92

Y

Y Branches, Brass.....	106
Y Branches, Cast Iron, Flanged.....	53
Y Branches, Cast Iron, Flanged, Extra Heavy.....	68
Y Branches, Cast Iron, Screwed.....	28
Y Branches, Cast Iron, Screwed, Extra Heavy.....	38
Y Branches, Drainage, Cast Iron.....	45 to 46
Y Branches, Long Turn, Cast Iron.....	47
Y Branches, Malleable.....	87

FIGURE NUMBER INDEX

Fig. No.	Page	Fig. No.	Page	Fig. No.	Page	Fig. No.	Page
1.....	1	51.....	11	100.....	14	147.....	21
2.....	2	52.....	11	101.....	14	148.....	22
3.....	3	53.....	11	102.....	14	149.....	22
4.....	3	54.....	11	103.....	14	150.....	22
5.....	4	55.....	11	104.....	14	150A.....	22
6.....	4	56.....	12	105.....	14	151.....	151
7.....	251	57.....	12	106.....	135	152.....	151
8.....	4	58.....	12	107.....	135	152A.....	151
9.....	5	59.....	12	108.....	135	153.....	23
10.....	5	60.....	12	109.....	135	154.....	23
11.....	5	61.....	12	110.....	136	155.....	23
12.....	6	62.....	12	111.....	136	155A.....	23
13.....	6	63.....	12	112.....	140	156.....	253
14.....	6	64.....	12	113.....	140	157.....	253
15.....	7	65.....	12	114.....	140	158.....	189
16.....	7	66.....	174	114A.....	140	158A.....	189
17.....	7	67.....	12	115.....	14	159.....	189
18.....	8	68.....	12	116.....	14	159A.....	189
19.....	8	69.....	12	117.....	136	160.....	24
20.....	8	70.....	12	118.....	136	161.....	24
21.....	8	71.....	13	119.....	136	162.....	153
22.....	9	72.....	13	120.....	136	162A.....	153
23.....	9	73.....	177	120A.....	136	163.....	153
24.....	9	74.....	177	120B.....	136	163A.....	153
25.....	9	75.....	177	121.....	14	164.....	254
26.....	9	76.....	175	122.....	14	165.....	254
27.....	9	77.....	175	123.....	14	166.....	254
28.....	10	78.....	176	124.....	14	167.....	188
29.....	10	79.....	173	125.....	14	168.....	188
30.....	10	80.....	13	126.....	14	169.....	182
31.....	10	81.....	173	127.....	14	170.....	179
32.....	10	82.....	174	128.....	15	170A.....	179
33.....	10	83.....	174	129.....	15	171.....	178
34.....	10	84.....	173	130.....	15	172.....	24
35.....	10	85.....	173	131.....	15	173.....	24
36.....	10	86.....	173	132.....	15	174.....	25
37.....	10	87.....	173	133.....	15	175.....	25
38.....	10	88.....	157	134.....	275	176.....	25
39.....	10	88A.....	157	135.....	255	177.....	26
40.....	10	89.....	13	136.....	276	178.....	26
41.....	10	90.....	13	137.....	277	179.....	27
42.....	10	91.....	13	138.....	278	180.....	27
43.....	10	92.....	13	139.....	21	181.....	28
44.....	11	93.....	13	140.....	21	182.....	28
45.....	11	94.....	13	141.....	149	183.....	28
46.....	11	95.....	13	142.....	149	184.....	29
47.....	11	96.....	13	143.....	150	185.....	30
48.....	11	97.....	13	144.....	150	186.....	30
49.....	11	98.....	13	145.....	150	187.....	30
50.....	11	99.....	14	146.....	150	188.....	30

FIGURE NUMBER INDEX—Continued

Fig. No.	Page	Fig. No.	Page	Fig. No.	Page	Fig. No.	Page
189.....	30	236.....	48	286.....	80	336.....	96
190.....	31	237.....	48	287.....	80	337.....	96
191.....	31	238.....	48	288.....	81	338.....	154
192.....	31	239.....	49	289.....	81	339.....	154
193.....	32	240.....	49	290.....	81	340.....	96
194.....	38	241.....	49	291.....	82	341.....	96
195.....	38	242.....	49	292.....	82	342.....	96
196.....	38	243.....	51	293.....	84	343.....	96
197.....	38	244.....	51	294.....	84	344.....	97
198.....	38	245.....	51	295.....	85	345.....	97
199.....	38	246.....	52	296.....	85	346.....	97
200.....	40	247.....	52	297.....	85	347.....	97
201.....	40	248.....	53	298.....	85	348.....	97
202.....	40	249.....	53	299.....	86	349.....	97
202A.....	40	250.....	54	300.....	132	350.....	98
203.....	152	251.....	54	301.....	132	351.....	100
203A.....	152	252.....	55	302.....	86	352.....	100
204.....	152	253.....	55	303.....	86	353.....	100
204A.....	152	254.....	56	304.....	87	354.....	100
205.....	41	255.....	56	305.....	87	355.....	100
206.....	41	256.....	57	306.....	88	356.....	100
207.....	41	257.....	57	307.....	88	357.....	100
208.....	43	258.....	57	308.....	89	358.....	101
209.....	43	259.....	58	309.....	89	359.....	101
210.....	43	260.....	59	310.....	89	360.....	101
211.....	43	261.....	59	311.....	89	361.....	101
212.....	43	262.....	60	312.....	90	362.....	101
213.....	43	263.....	66	313.....	90	363.....	101
214.....	43	264.....	66	314.....	90	364.....	101
215.....	43	265.....	154	315.....	91	365.....	101
216.....	43	266.....	154	316.....	91	366.....	102
217.....	44	267.....	154	317.....	91	367.....	102
218.....	44	268.....	154	318.....	91	368.....	102
219.....	44	269.....	66	319.....	91	369.....	102
220.....	45	270.....	67	320.....	92	370.....	102
221.....	45	271.....	67	321.....	92	371.....	102
222.....	45	272.....	68	322.....	92	372.....	102
223.....	45	273.....	68	323.....	92	373.....	102
224.....	45	274.....	69	324.....	92	374.....	103
225.....	45	275.....	69	325.....	93	374A.....	103
226.....	46	276.....	70	326.....	93	375.....	103
227.....	46	277.....	70	327.....	93	375A.....	103
228.....	46	278.....	71	328.....	93	376.....	103
229.....	46	279.....	71	329.....	94	376A.....	103
230.....	47	280.....	72	330.....	94	377.....	103
231.....	47	281.....	72	331.....	94	377A.....	103
232.....	47	282.....	72	332.....	95	378.....	103
233.....	47	283.....	73	333.....	95	379.....	104
234.....	48	284.....	73	334.....	95	379A.....	104
235.....	48	285.....	74	335.....	95	380.....	104

FIGURE NUMBER INDEX—Continued

Fig. No.	Page	Fig. No.	Page	Fig. No.	Page	Fig. No.	Page
381.....	104	425.....	113	475.....	137	522.....	143
382.....	105	426.....	113	476.....	137	523.....	143
383.....	105	427.....	113	477.....	151	524.....	144
383A.....	105	428.....	113	477A.....	151	525.....	144
384.....	105	429.....	113	478.....	151	525A.....	144
385.....	106	430.....	113	479.....	124	526.....	144
385A.....	106	431.....	114	480.....	124	527.....	144
386.....	106	432.....	114	481.....	125	528.....	145
387.....	106	433.....	115	482.....	125	528A.....	145
388.....	106	434.....	115	483.....	125	529.....	145
389.....	107	435.....	115	484.....	126	530.....	145
390.....	107	436.....	115	485.....	126	531.....	146
391.....	107	437.....	115	486.....	127	532.....	146
392.....	107	438.....	115	487.....	127	533.....	146
393.....	108	439.....	115	488.....	128	534.....	146
394.....	108	440.....	115	489.....	128	535.....	149
395.....	108	441.....	115	490.....	128	536.....	149
396.....	108	442.....	115	491.....	128	537.....	149
397.....	109	443.....	115	492.....	129	538.....	155
398.....	109	444.....	116	493.....	129	539.....	155
399.....	109	445.....	116	494.....	130	540.....	155
400.....	148	446.....	116	495.....	130	541.....	157
401.....	147	447.....	116	496.....	131	542.....	157
402.....	147	448.....	116	497.....	131	543.....	158
403.....	147	449.....	116	498.....	131	544.....	158
404.....	147	450.....	117	499.....	131	545.....	158
404FM.....	152	451.....	117	500.....	138	546.....	159
405.....	148	452.....	117	501.....	138	547.....	159
406.....	148	453.....	117	502.....	138	548.....	162
407.....	110	454.....	118	503.....	138	549.....	162
408.....	110	455.....	118	504.....	132	550.....	162
409.....	110	456.....	118	505.....	132	551.....	156
410.....	111	457.....	118	506.....	133	552.....	162
410A.....	111	458.....	118	507.....	133	553.....	156
411.....	111	459.....	118	508.....	133	554.....	163
412.....	111	460.....	120	509.....	133	555.....	163
412A.....	111	461.....	120	510.....	133	556.....	163
413.....	111	462.....	121	511.....	134	557.....	163
413A.....	111	463.....	121	511A.....	134	558.....	164
414.....	111	464.....	121	512.....	134	559.....	164
415.....	111	465.....	121	513.....	134	560.....	164
416.....	111	466.....	121	514.....	139	561.....	164
417.....	111	467.....	122	515.....	139	562.....	165
418.....	111	468.....	122	516.....	141	563.....	165
419.....	111	469.....	122	517.....	141	564.....	166
420.....	111	470.....	123	517A.....	141	565.....	166
421.....	112	471.....	123	518.....	142	566.....	166
422.....	112	472.....	123	519.....	142	567.....	167
423.....	113	473.....	123	520.....	142	568.....	167
424.....	113	474.....	124	521.....	143	569.....	167

FIGURE NUMBER INDEX—Continued

Fig. No.	Page	Fig. No.	Page	Fig. No.	Page	Fig. No.	Page
570.....	167	620.....	194	670.....	210	720.....	219
571.....	167	621.....	194	671.....	280	721.....	219
572.....	168	622.....	195	672.....	210	722.....	219
573.....	168	623.....	195	673.....	280	723.....	219
574.....	168	624.....	196	674.....	210	724.....	219
575.....	168	625.....	196	675.....	281	725.....	220
576.....	169	626.....	197	676.....	210	726.....	220
577.....	169	627.....	197	677.....	281	727.....	220
578.....	169	628.....	198	678.....	211	728.....	220
579.....	170	829.....	198	679.....	119	729.....	220
580.....	170	630.....	199	680.....	211	730.....	220
581.....	171	631.....	199	681.....	119	731.....	221
582.....	171	632.....	199	682.....	211	731A.....	221
583.....	171	633.....	200	683.....	213	732.....	160
584.....	171	634.....	200	684.....	213	733.....	160
585.....	172	635.....	201	685.....	212	734.....	160
586.....	172	636.....	201	686.....	119	735.....	160
587.....	172	637.....	202	687.....	212	736.....	161
588.....	172	638.....	202	688.....	120	737.....	161
589.....	172	639.....	203	689.....	212	738.....	221
590.....	172	640.....	203	690.....	212	739.....	222
591.....	178	641.....	203	691.....	211	740.....	222
592.....	000	642.....	204	692.....	213	741.....	222
593.....	180	643.....	204	693.....	213	742.....	222
594.....	181	644.....	190	694.....	214	743.....	222
595.....	181	645.....	190	695.....	214	744.....	223
596.....	181	646.....	190	696.....	214	745.....	223
597.....	183	647.....	190	697.....	214	746.....	223
598.....	183	648.....	251	698.....	214	747.....	161
599.....	184	649.....	278	699.....	215	748.....	161
600.....	184	650.....	279	700.....	215	749.....	223
601.....	185	651.....	279	701.....	215	750.....	223
602.....	185	652.....	279	702.....	215	751.....	224
603.....	186	653.....	279	703.....	216	752.....	224
604.....	187	654.....	205	704.....	216	753.....	224
605.....	187	655.....	205	705.....	216	754.....	225
606.....	187	656.....	205	706.....	216	755.....	225
607.....	191	657.....	137	707.....	216	756.....	225
608.....	191	658.....	206	708.....	216	757.....	226
609.....	191	659.....	206	709.....	217	758.....	120
610.....	192	660.....	206	710.....	217	759.....	120
611.....	192	661.....	207	711.....	217	760.....	120
612.....	192	662.....	207	712.....	217	761.....	000
613.....	192	663.....	207	713.....	217	762.....	000
614.....	193	664.....	208	714.....	217	763.....	000
615.....	193	665.....	208	715.....	218	764.....	000
616.....	193	666.....	208	716.....	159	765.....	227
617.....	193	667.....	209	717.....	218	766.....	227
618.....	194	668.....	209	718.....	218	767.....	228
619.....	194	669.....	209	719.....	219	768.....	228

FIGURE NUMBER INDEX—Continued

Fig. No.	Page	Fig. No.	Page	Fig. No.	Page	Fig. No.	Page
769.....	229	795.....	247	820.....	260	845.....	269
770.....	229	796.....	248	821.....	260	846.....	269
771.....	232	797.....	248	822.....	261	847.....	270
772.....	233	798.....	249	823.....	261	848.....	270
773.....	234	799.....	249	824.....	261	849.....	270
774.....	234	800.....	252	825.....	262	850.....	271
775.....	235	801.....	252	826.....	262	851.....	271
776.....	236	802.....	253	827.....	262	852.....	271
777.....	237	803.....	000	828.....	263	853.....	271
778.....	238	804.....	000	829.....	263	854.....	272
779.....	239	805.....	000	830.....	263	855.....	272
780.....	240	806.....	000	831.....	263	856.....	273
781.....	241	807.....	256	832.....	264	857.....	273
782.....	241	808.....	256	833.....	264	858.....	273
783.....	242	809.....	257	834.....	265	859.....	274
784.....	243	810.....	257	835.....	265	860.....	274
785.....	243	811.....	257	836.....	266	861.....	274
786.....	243	812.....	257	837.....	266	862.....	274
787.....	244	813.....	258	838.....	267	863.....	274
788.....	244	814.....	258	839.....	267	864.....	274
789.....	245	815.....	258	840.....	267	865.....	274
790.....	245	816.....	258	841.....	267	2104.....	231
791.....	246	817.....	258	842.....	268	2132.....	230
792.....	247	818.....	259	843.....	268	2176.....	230
793.....	247	819.....	260	844.....	269	2234.....	231
794.....	247						

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